UNIVERSITY OF SCRANTON

1990/91 Undergraduate Catalog

College of Arts and Sciences
School of Management
College of Health, Education, and Human Resources
Dexter Hanley College

1990-91 UNIVERSITY OF SCRANTON CALENDAR

SEMESTERS 1990-91

FALL 1990		SPRING 1991
Aug. 25-26	Undergraduate Student Orientation	
Aug. 27	Classes Begin	Feb. 4
Sept. 3	Labor Day Holiday (no classes)	
Sept. 4	Last Day 100% Refund	Feb. 12
Sept. 5	Last Day to Add, Change	Feb. 12
Sept. 8	Last Day to Declare Pass-Fail Option	Feb. 15
Sept. 11	Last Day 75% Refund	Feb. 19
Sept. 18	Last Day 50% Refund	Feb. 26
Sept. 25	Last Day 25% Refund	March 5
Oct. 10	Quarter Ends; Last Day Credit to Audit	March 15
Oct. 10	Incompletes To F's	March 15
Oct. 12	Quarter Grades Due	March 20
Oct. 13	Fall/Spring Break Begins	March 18
Oct. 22	Classes Resume	March 26
Nov. 8	Last Day to Withdraw	April 15
Nov. 21	Thanksgiving/Easter Holiday Begins	March 29
Nov. 26	Classes Resume	April 8
Dec. 3-7	Dead Week (No Exams)	May 8-14
Dec. 8-9	Study Day	May 15
Dec. 10	Final Exams	May 16
	Senior Grades Due by Noon	May 21
Dec. 17	Semester Ends	May 23
Dec. 20	Grades in By Noon	May 28
	Commencement	May 26

SHORT SESSIONS 1991

Intersession		Summer Session 1	Summer Session 2
Jan. 3	1st Class, Preliminary Classlist	June 3	July 8
Jan. 5	Last Day to Add, Change	June 5	July 10
Jan. 5	Last Day 100% Refund	June 5	July 10
Jan. 5	Last Day to Declare Pass-Fail Option	June 5	July 10
Jan. 9	Last Day 50% Refund	June 7	July 12
Jan. 12	Return Corrected Classlist	June 12	July 17
Jan. 16	Last Day Credit to Audit	June 14	July 19
Jan. 23	Last Day to Withdraw	June 21	July 26
Jan. 31	Final Exam	June 28, 29	Aug. 2, 3
Feb. 5	Grades in by Noon	July 3	Aug. 7

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UNDERGRADUATE CATALOG
1990/91

Where Potential Becomes Achievement in the Jesuit Tradition

Volume 75 July 1990

University of Scranton
Scranton, Pennsylvania 18510-4699

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CAMPUS MAP ..... Inside Back Cover

J.A. Panuska, S.J., Ph.D., President of the University

The University of Scranton was founded in 1888 by Bishop William O'Hara. Originally called St. Thomas College, the University received its present name in 1938 and welcomed the Jesuit fathers in 1942. After a period of unprecedented growth in both size and quality, the University celebrated its Centennial in 1988 and faces the future with pride and confidence.

Where Potential Becomes Achievement

"Metanoia," the transformation of St. Ignatius.

The University of Scranton understands itself as a place "where potential becomes achievement in the Jesuit tradition." This statement is here elaborated in terms of the University's mission, its campus, its faculty, and its students.

STATEMENT OF MISSION

1. The University of Scranton is Catholic and Jesuit in both tradition and spirit. Committed to liberal arts education, the University has served primarily undergraduate men and women, but also serves graduate students, adult learners, and persons interested in continuing their professional education. Founded as St. Thomas College by the Bishop of Scranton in 1888, the institution moved to the administration of the Society of Jesus in 1942.

The University of Scranton's chief concerns, **as a university,** are for learning and the truth. The University aspires to encourage the kind of community for students and faculty in which learning will lead to personal growth and development. It strives to create the sort of environment in which the wisdom of past years can be preserved for the enlightenment of the future and in which the continuing search for truth can prosper. The University understands that freedom of inquiry and respect for the dignity and rights of all people must be protected for these hopes to be fulfilled.

2. **Our Catholic tradition and spirit** mean, first of all, that the University recognizes that the teaching and example of Jesus Christ are central sources of values and attitudes which should be reflected in the campus culture. Thus, Theology, as an intellectual effort to understand the data of divine revelation, is an important academic discipline at the University; and the University, although independently incorporated by the Commonwealth of Pennsylvania, stands firmly in the Roman Catholic tradition and communicates this tradition in a systematic way. It also explores other traditions, for their intrinsic merit and for the contributions they can make to a better understanding of the Catholic tradition. The University thus does not intend to serve Roman Catholics in an exclusionary sense but rather to provide Catholic education in a properly ecumenical context for students from a variety of religious backgrounds and different value orientations.

3. **Our Jesuit tradition and spirit** mean that the life of the University is inspirited with the vision contained in the Book of the Spiritual Exercises of St. Ignatius of Loyola, the founder (in 1540) of the Jesuit Order. This spirit is brought to the University not only by the Jesuits who live and work here, but, with ever increasing significance, also by their colleagues and students who may make their own this same vision through the personal experience of the Spiritual Exercises.

Translated into an educational context, this vision manifests itself in respect for the individual student as a unique person and in an emphasis on service, an open communication, on freedom of choice, on commitment to the value system contained in the Gospel of Christ. As Jesuit education grew, these characteristics manifested themselves in more measurable educational terms like clarity of thought, care for fundamentals, excellence in written and oral expression, reflection on personal experience, respect for the best in past human experiences.

4. **The University is committed to liberal arts education;** the University also affirms its emphasis on professional and pre-professional education. Though these aims may seem to be in some tension, the University believes that there is a creative relationship between laying the broad foundation that liberal arts education provides, and striving to serve the career-oriented expectation of its students and the needs of society for humanistically trained professionals.

In the Jesuit tradition, the liberal arts are defined in broad terms, comprising not only the humanities, but also science as well. (The breadth and richness of the Jesuit sense of the liberal arts is given one useful historical definition in the Society's Constitutions, Part IV, Chapter 12. See also the end of paragraph 2 of Section 3 above.) It is our goal, therefore, to provide a common foundation in the liberal arts to all of the programs of specialization in the undergraduate schools and colleges. In line with the emphasis attached to the liberal arts, attractive majors in the traditional disciplines will be provided, and special care will be taken to foster excellence of teaching and library support for these fields.

Mother Teresa receives Centennial Medal from the President.

The University's strength in professional and preprofessional programs is expressed by a good range of career-oriented majors in the College of Arts and Sciences; the School of Management; the College of Health, Education, and Human Resources; and Dexter Hanley College, as well as the Graduate School. The programs are designed to meet the standards of the appropriate professional fields, and also to develop students who have a clear sense of the ethical responsibilities which these fields demand of their successful practitioners.

5. **The University is committed to adult and non-traditional learners.** This commitment, fulfilled in the various credit and non-credit programs offered by Dexter Hanley College, is rooted in the institution's Jesuit identity as well as its historical aim of service to the local community. This aspect of the University's mission is expressed in full harmony with its goal of educational quality.

6. **The University is committed to excellent graduate education to the master's level.** This commitment, affirmed first with the creation of the Graduate School in 1950, has been reaffirmed. In the reaffirmation, the University related its graduate mission not only to its community service role, but also to its desire to promote faculty and student scholarship and research. Programs offered by the Graduate School are not only intended to serve the appropriate professional needs of the community, they are also intended to provide a balanced array of studies, reflective of the range of the University's resources in the humanities, the sciences, and the social sciences.

7. **The University serves not only the local community, but other communities as well.** The University is committed to serving students from a wide geographical region within and beyond the borders of the United States, while at the same time retaining its special commitment to the community of northeastern Pennsylvania where it has its historical roots. It intends to build its on-campus resident population while maintaining the presence of commuter students from the metropolitan area.

8. **The University is committed to academic excellence.** The pursuit of this goal touches all elements of the life of the University as outlined below. To excel is to move or to stand apart from a well-defined starting point. Our pursuit of academic excellence begins with an understanding of where we are and what we propose to do.

8.1 **Students.** We begin with a respect for the varying capacities of the students, a characteristic Ignatius of Loyola insisted upon for his schools. The University will include in its student body only those who are capable of serious academic work, but, given that initial norm, the University wants heterogeneity in its student body with respect to race, sex, religion, and socio-economic background. Moreover, the University intends to do all it can to serve the poor and to keep itself accessible to the range of socio-economic groups it has traditionally served. Excellence in the student body is measured in terms of development of academic potential, respecting in every case the unique characteristics and varying capacities of students.

8.2 **Faculty.** We begin with the acknowledgement that the quality of the University depends essentially on the quality of the faculty. We also propose to be a university that emphasizes good teaching. The University, however, takes the position that teaching is enhanced by serious scholarship and ordinarily will not last without it. Hence, excellence in the University's faculty is measured in terms of continued advancement in the quality, effectiveness, and vitality of classroom performance, as well as the continued application of faculty energy to research which advances human knowledge and may lead to publication for a scholarly audience beyond the University community. We regard teaching and research as complementary to, not in opposition to or competition with each other.

8.3 **Administration.** The starting point from which administrators advance is manifold. It presupposes credentials appropriate for leadership and management in an educational environment, experience with the special problems of that environment, and knowledge of, as well as being known in, the academic community beyond the University. Excellence is then measured along lines of improved knowledge of the University as an institution and a community, service to the constituencies of the University, availability and responsiveness to the needs of the University community, management of academic and financial affairs, effectiveness of planning, decision-making, communication of plans and decisions to the University community, and impact in the realm of ideas and influences in the metropolitan area or beyond.

9. **The University of Scranton is committed to the development of the student, including the individual's moral development.** The student is at the center of everything the University does. Our governance, instruction, and all related services, especially counseling services and academic advising, respect the uniqueness of the individual. The individual is viewed, however, as a member of a campus community and of a larger human community. The educational approach of Christian personalism regards the individual as a person-in-community. Education at the University of Scranton aims to sensitize the student to societal obligations as well as to the student's unique personal value. With total respect for an individual's freedom of choice and conscience, the University provides opportunities for worship and spiritual growth. Provision is also made for social development in a community environment. The social and intellectual dimensions of the campus community are value oriented, designed to foster in every student principled judgments and actions that are free, responsible, and humanly valid.

10. **The University of Scranton is committed,** as one of the dominant institutions in northeastern Pennsylvania, **to community service.** The primary service rendered by the University to the area is the education of future leaders for the area's professional, political, religious, cultural and business communities. The University recognizes its responsibility, within its capability, to render technical and cultural assistance to members of these communities. Accordingly, the University actively participates in the efforts to improve the region's economic and social environment. In addition, the University provides students, as students, with experience of the dominant social and economic problems of this region. It does so in order to assist them in systematic analysis of the problems of contemporary life and motivate them to contribute in some ways after graduation to the solution of these human problems.

11. **The University acknowledges that being Jesuit in tradition and spirit means being experimental and innovative.** A Jesuit university belongs at the forefront of Catholic intellectual life, interpreting the Church to the world and the world to the Church. It is in the Jesuit style to do, in education or any other work, what others cannot or choose not to do. The University therefore commits itself to the fostering of these characteristics from its well-established institutional base. The educational apostolate under Jesuit auspices is a means for promoting the greater glory of God through the lives of human persons. Accordingly, the object of education is not only the intellect but also the will, and indeed the whole human person.

12. **The Statement of Mission is intended to give direction to all that the University does.** Progress toward these ends will be measured first by the ability of each academic department and administrative unit to choose, and announce the choice of goals and specific objectives pertaining to each division of this Mission Statement. Second, progress toward our goals will be measured by the actual achievement of the stated objectives. The objectives, clearly stated, quantified, and specified within a time frame, will be means to the ends spelled out in this Statement.

THE CAMPUS

Since 1956, a development program has added 30 buildings, including twelve residence halls. Principal among these campus structures are:

ALUMNI MEMORIAL LIBRARY—Opened in 1960, a striking presentation of functional architectural planning, this bright air-conditioned building contains 225,000 volumes and subscription service to 1,800 periodicals. Microfilm, microcard and microfiche, CD ROM, collections numbering 52,000 items, as well as a science reference room, are located here.

SAINT THOMAS HALL—Located at the foot of the University Commons, this building is named for St. Thomas Aquinas and provides a symbolic historic link between the modern University of Scranton and its predecessor, St. Thomas College. It contains classrooms, language and communication laboratories, the Computer Center, a small chapel, offices for the Registrar, Treasurer, Dean of the College of Arts and Sciences, Dean of the College of Health, Education, and Human Resources, Admissions, and Financial Aid. The HARPER-MC GINNIS WING, added in 1987, contains state-of-the-art equipment for the study of Physics, Electronics Engineering, Computing Sciences, and the Technology Center.

THE GALLERY—A multi-purpose academic building named in honor of former President Eugene Gallery, S.J., this houses Dexter Hanley College, a Media Resources Center with an audio-visual collection of more than 5,000 units, two large multi-media classrooms, the office of Career Services, the Counseling Center, a large quiet study area, and the University's art gallery.

JOHN J. LONG CENTER—Completed in 1968, and named for the former Jesuit President of the University, this three-level, multi-purpose structure has enabled the University to broaden its program of physical education. It includes a 22,820 square foot main floor area used for basketball, or convocations with a seating capacity of 4,400. It provides specialized facilities for such activities as wrestling, weight lifting, handball, tennis, and golf, as well as a physical therapy room and sauna.

LOYOLA HALL OF SCIENCE—Recently renovated and expanded, this structure houses highly specialized laboratories for the study of chemistry and biology.

O'HARA HALL—Named in honor of Frank J. O'Hara, who served the University for over half a century, this building on the corner of Jefferson and Linden Streets houses the School of Management, and the departments of Nursing, Psychology, Human Resources, and Education.

GUNSTER MEMORIAL STUDENT ACTIVITIES CENTER—Facilities include faculty and student lounges, cafeteria and snack bar, game room, and the 400-seat Eagen Auditorium used for cultural events and dramatic productions. Houses the offices of the Vice-President for Student Affairs, Dean of Students, Campus Ministry, Student Government and Commuter Affairs.

JEFFERSON HALL—Houses both residence facilities and centers for special activities, the radio and television labs, a 300-seat auditorium, and the Lawrence Mann reading room. Offices for the Departments of Physical Therapy, Communication, and Military Science are located in this building.

ROCK HALL—This structure with its ecclesiastical architecture is located above the campus in the 400 block of Monroe Avenue. It houses the University's principal chapel, Madonna della Strada, as well as the offices of Central Services and Safety and Security. It is named after the late Joseph A. Rock, S.J., professor of history and academic vice president emeritus.

WILLIAM J. BYRON RECREATION COMPLEX—Named for the Jesuit educator, formerly president of the University of Scranton and now president of the Catholic University of America, this structure was completed in 1986. It contains a large swimming pool, racquetball courts and other athletic and meeting facilities.

ELM PARK—By arrangement with the Elm Park United Methodist Church, the University now occupies two floors of its spacious parish building. This facility houses the Department of Sociology and Criminal Justice, as well as classrooms and faculty and student activities offices.

HOULIHAN-MC LEAN CENTER—Named for two eminent School of Management faculty, this former church structure contains a large auditorium and offices and practice rooms for University bands and choirs.

SMURFIT ARTS CENTER—Another former ecclesiastical structure, located at the corner of Madison and Vine, this building houses offices and studios for the University's Fine Arts Department. It is named after a generous Irish benefactor, Michael Smurfit.

THE ESTATE—Former residence of the Scranton family, and more recently of the Jesuit community, this magnificent structure now contains the offices of the University Provost, the Graduate School, and Research Services.

SCRANTON HALL—The former carriage house to the Scranton mansion, erected in 1871, became the President's office in 1958 and was named for the Scranton family in 1964.

HILL HOUSE—Named after the Rev. William B. Hill, S.J., Professor of English and Academic Vice-President Emeritus, this faculty residence and meeting facility is located at the eastern end of the campus on the corner of Webster and Linden Streets.

UNIVERSITY COMMONS—Provides the University with a central campus environment. The Commons has a serpentine alignment with the area in front of the Gunster Memorial forming a focus for the campus. The area provides a major pedestrian link between Galvin Terrace, the University's outdoor sports center, the Gunster Memorial Student Activities Center, John Long Center, residence halls, and the heroic-sized sculpture of "Jacob and the Angel."

CHAPMAN LAKE—The University's Conference and Retreat Center at Lakeside Pines provides 8 acres of recreation space only 20 minutes drive from campus in Montdale, Pa.

RESIDENCE HALLS—Designed to function according to small-group living principles, ten residence halls, centered about terraced quadrangles, are provided. A Jesuit counsellor lives in most halls and there is a resident assistant on each floor.

To meet the increasing enrollment of resident students, the University has constructed two new dormitories. The first, opened in September 1985, is named Redington Hall to honor a generous benefactor, Francis E. Redington. The second, opened in August 1989 and functioning as a "residential college," is named Gavigan Hall after Vice President for Student Affairs Emeritus John R. Gavigan. The University also has recently acquired a series of houses and apartment buildings in the vicinity of campus and converted these to various types of student apartment complexes. Some of these are organized about academic interests and most feature optional kitchen arrangements. Finally, students in the upper classes are permitted to live off campus in non-university owned apartments.

The standard plan for resident students includes living quarters, three meals on each class day, and brunch and dinner on weekends and mid-week holidays. The plan includes nursing service for emergency and short-term care in the infirmary. Further information is given in the section of the Bulletin which deals with expenses.

CAMPION HALL—Named for Edmund Campion, 16th Century Jesuit scholar and martyr, this residence was built by the Society of Jesus in 1987 for its members who serve the University.

HYLAND HALL—Completed for Fall 1988, this new classroom building at the corner of Linden and Jefferson honors Kathryn and Bernard Hyland, parents of University alumnus and benefactor Bernard V. Hyland, M.D. This facility also houses the University bookstore.

ALUMNI HOUSE—circa 1928, headquarters of the University of Scranton National Alumni Society.

A FACULTY OF TEACHERS AND SCHOLARS

Over 250 faculty and administrators participate in the University's educational enterprise. They hold degrees from 135 different universities in 30 countries on five continents. Cambridge and the University of London in England; Louvain and the Gregorian on the Continent; the University of Calcutta in India, the Sophia University in Japan, Soochow University in China; Berkeley, Princeton, Yale, MIT, Notre Dame and Georgetown in America—all are represented among the faculty.

By its nature and function, a university faculty constitutes the most cosmopolitan element in a community. Hindu and Muslim, Christian and Jew, ministers and rabbis—scholars and teachers all—are found on the University's faculty.

The Jesuit tradition is carried on at the University not only by the 25 Jesuits engaged in teaching or administration, but by the fact that almost half of the faculty hold at least one degree from a Jesuit college or university.

As indicated in the Statement of Mission, excellent teaching and scholarship are regarded as complementary at this institution. Evidence of the latter is seen in the fact that numerous faculty serve on editorial boards of national and international journals, and two have served as principal editors—Prof. David Friedrichs, *Legal Studies Forum;* and Dr. John Norcross, *Journal of Integrative and Eclectic Psychotherapy.* Further, Fr. Richard Rousseau, S.J., is founding editor of Ridge Row Press, which in 1988 expanded to become the University of Scranton Press and which specializes in philosophical and theological publications.

The Directory at the conclusion of this Bulletin presents more detailed information about the faculty.

STUDENT DIVERSITY AND PARTICIPATION

As the faculty come from around the world, so do our students. Twenty-seven states and twenty foreign countries are represented in the University's student body of 5,000. In turn, through the Fulbright and Year Abroad programs, University of Scranton students matriculate at such foreign universities at Louvain, Madrid, Tubingen, Mainz, Oslo, Fribourg, Cologne, Berne, Strasbourg, the Sorbonne, and University College, Dublin. This interchange of students contributes to the diversity and intellectual life of the University.

Much of the work in this university community is accomplished through student input. Considerable scientific research at the University is done by undergraduate students in the laboratories and in the field. The University newspaper and yearbook are edited and managed by students. With faculty assistance, students publish articles and abstracts in national scholarly journals. Students work in the public relations and admissions offices, computer center, as resident assistants in the dormitories, as research assistants and interns for deans and registrars. Similarly, they participate in the University's decision making. Seven students are elected by the student body to serve on the University Senate. Others serve with departmental chairpersons and faculty on the Conferences which recommend to the Deans changes in academic programs. Students also serve with other members of the University community on the various Search Committees which recommend candidates for the principal administrative posts from President to Dean.

INDICES OF ACHIEVEMENT

Working with dedicated faculty and staff to maximize their potential, students at the University of Scranton become achievers. Among over 23,000 alumni the following might in particular be mentioned:

Patrick Cardinal O'Boyle ('16), Archbishop of Washington; Michael J. Eagen, Sr. ('27), Chief Justice of the Pennsylvania Supreme Court; Dr. Clarence Walton ('37), first lay president of the Catholic University of America; Dr. Glynn Lunney ('55), Chief of the Flight Director's Office for the National Aeronautics and Space Administration, lead flight director for historic moon flights of Apollo 11 through 15; Jason Miller ('61), winner of the 1973 Pulitzer Prize in Drama for *That Championship Season* and "Oscar" nominee for his role in *The Exorcist;* Paul Montrone ('62), president and managing director of the Henley Group, Inc., a Fortune 500 Company; Dr. Francis J. Castellino ('64), Dean of the College of Science, University of Notre Dame; Arthur W. Brown, Ph.D. ('37), former President of Mary Grove College and Adelphi University; Gerard R. Roche ('53), Chairman of the Board, Heidrick and Struggles, Inc.; and Robert F. Pugliese, Esq. ('54), Executive Vice President, Legal and Corporate Affairs, Westinghouse Electric Corporation.

BACCALAUREATE SOURCE OF Ph.D.s

Achievement is also recognized in a recent study of the office of institutional research at Franklin and Marshall College which shows that over a 66-year period (1920-86), the University of Scranton ranked 90th out of 877 four-year, private, primarily undergraduate institutions as the baccalaureate source of Ph.D.s in all fields.

MEDICINE AND LAW

The similarly excellent record of Scranton alumni in gaining acceptance to professional schools—including the nation's most prestigious—is documented in the Pre-Medical and Pre-Law sections later in this catalog.

TRUMAN AND OTHER NATIONAL SCHOLARSHIPS

In recent years students from the University have won a number of highly competitive national fellowships, including those offered by the Mellon Foundation, the Danforth Foundation, the National Science Foundation, and the Harry S. Truman Memorial Foundation. Most remarkably, two sisters, Maria Mascaro (1984) and Carla Mascaro (1987), both were awarded four-year Truman scholarships. In 1988 Alice Batt, a double major in English and Philosophy, won a summer study grant through the National Endowment for the Humanities.

NATIONAL ALUMNI SOCIETY

The Alumni Society of the University of Scranton provides a way for graduates to continue their participation in the life of the University after their student years. Its 13 regional alumni chapters include over 23,000 members throughout the country. The Society, which is governed by elected officers and a 21 member Board of Governors, assists in a variety of annual activities, including conferences, receptions, committee meetings and lectures. In addition, the Society provides a number of membership services and benefits. The fall and winter homecomings and the annual Alumni Reunions are coordinated by the Office of Alumni Relations located in the Alumni House on campus.

INTERNATIONAL FELLOWSHIPS: FULBRIGHT AND ROTARY

Achievement is recognized too in the number of prestigious international fellowships awarded to graduates in recent years. In the last 17 years, 61 students have been awarded fellowships in the competitions administered by the Institute of International Education and International Rotary.

Seven University of Scranton students held fellowships awarded through the Institute of International Education and the Rotary Foundation in 1986-87. Robert Rabecs, a triple major in political science, philosophy and history, won a Fulbright to the Philippines; James (Todd) Lavelle, a double major in biology and history, was awarded a Fulbright to Thailand; Christopher Montone, a double major in international studies and Spanish, won a Fulbright to Honduras; Roy Whitman, an international studies major, was awarded a Swiss University grant to Fribourg; Margaret Husosky, an economics/finance major, studied at Auckland University in New Zealand; and DeLoris Spegar, a finance/business major, was the first University student to receive a Fulbright to Singapore. Finally, Janet Schubert, a foreign languages major, won a Rotary fellowship to the Academie Royale des Beaux—Arts de Bruxelles in Belgium.

Four University of Scranton students held fellowships in 1987-88. Susan Anne Conway, a double major in modern languages and economics/finance, won a Fulbright to Germany; Margaret M. Keen, a modern languages major, was awarded a French Government Teaching Assistantship to France; and Kevin Michael Wright, a double major in accounting and philosophy, won a Fulbright to Finland. Finally, Kathleen Mary Gallagher, a double major in psychology and philosophy, received a Rotary International Fellowship to Nepal.

In 1988-89, four University students held Fulbright Fellowships. Michel Aboutanos, a double major in biology and French, held a Swiss University fellowship to the University of Fribourg; Christine O'Brien, a double major in biology and philosophy, received a Fulbright to Kenya; Mary Fan-Mei Yuen was awarded a Fulbright to Singapore; Jeffrey Gabello, a double major in accounting and German, won a Fulbright to Germany.

During 1989-90, Kim Marie Newak, a double major in history and German, received a Fulbright fellowship to Germany. Caroline Parente, a double major in history and international studies, holds a Fulbright to Uruguay during 1990-91. A full list of the University's international fellowship winners follows on the succeeding pages.

In recognition of Senator J. William Fulbright's contribution to the Fulbright Fellowship program, the University of Scranton on May 29, 1983 awarded him an honorary degree.

Dr. Susan Trussler of the Economics/Finance department is the University's Fulbright Advisor.

Rev. J.A. Panuska, S.J., congratulates Caroline Parente, 1990 Fulbright recipient.

Senator J. William Fulbright

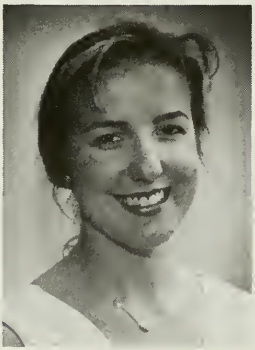
AWARDS FROM INSTITUTE OF INTERNATIONAL EDUCATION
FULBRIGHT PROGRAM AND INTERNATIONAL ROTARY, 1972-1989

1972	Gerald Mulderig	Germany
	John Rock, S.J.	Germany
1973	Gerard Dougher	France
1974	Basil Malish	Portugal
	George McCool	France
	Kevin Wilson	Rumania
1975	John Ausura	Germany
1976	Grace Hosie	Germany
	Laurence Orzell	Poland
1977	Thomas Bonhage	Germany
1978	Paula Dzwonczyk Betancourt	Germany
	Philip Horner	Switzerland
1979	Mark Bender	Rumania
	Louis Furiosi	France
	Dennis Hagemann	Germany
	Christine Piatek	Poland

1980	Veronica Cardiff	Germany
	Stephen Carlin	Chile
	Michael Corbley	Switzerland
	Maryann L. Heckman	Uruguay
	Helen Hricko Haney	Germany
1981	Patrick Cumberland	Uruguay
	Arlene Drack (ITT)	Norway
	Deborah Krzywiec	Germany
	Irene Mlodzinski	Switzerland
	Mark Wisniewski	Switzerland
	Brian Wynne	Germany
1982	Michael Kondraki	Peru
	Bernadine Brennan-Moglia (ITT)	Finland
	Kathleen Flanagan	Belgium
	Joseph Piccirilli	Germany
	Howard Sorensen	Uruguay
	Elizabeth Veca	Switzerland
	Leon Xavier Zawacki	Germany
1983	Erin Brennan	Germany
	Patrick Davies (ITT)	Chile
	Peter Regeski	France
	Joseph Tuncavage	Switzerland
	Christopher Wahren	Germany
1984	Robert Conforti	Switzerland
	Kathleen Flanagan	France
	Colette Mazzucelli	Switzerland
1985	John Beltrami	Switzerland
	Michele Gieger	Germany
	Marguerite Pedley	New Zealand
	Louise Vogel	Germany
1986	Margaret Husosky	New Zealand
	James Lavelle	Thailand
	Christopher Montone	Honduras
	Robert Rabecs	Philippines
	Janet Schubert	Belgium
	DeLoris Spegar	Singapore
	Roy Whitman	Switzerland
	Ann Marie Laskiewicz	South Africa
1987	Susan Conway	Germany
	Kathleen Gallagher	Nepal
	Margaret Keen	France
	Kevin Wright	Finland
1988	Michel Aboutanos	Switzerland
	Jeffrey Gabello	Germany
	Christine O'Brien	Kenya
	Mary Yuen	Singapore
1989	Kim Marie Newak	Germany
1990	Caroline Parente	Uruguay

RECENT INTERNATIONAL FELLOWSHIP WINNERS

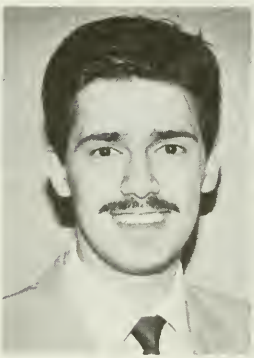
Kevin Wright (1987)
Finland



Kim Newak (1989)
Germany

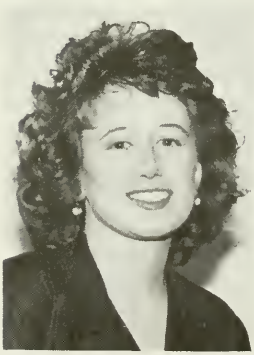
Jeff Gabello (1988)
Germany

Margaret Keen (1987)
France



Michel Aboutanos (1988)
Switzerland

Mary Yuen (1988)
Singapore



Christine O'Brien (1988)
Kenya

Christopher Montone (1986)
Honduras

Kathleen Gallagher (1987)
Nepal

Academic Program

The University's academic program for undergraduates is offered through three day schools, the College of Arts and Sciences, the School of Management, and the College of Health, Education, and Human Resources; and through its evening division, Dexter Hanley College. The schools share a common General Education program and offer baccalaureate degrees in 46 fields.

DEGREE PROGRAMS

The University offers the following degree programs for the undergraduate student:

BACHELOR OF ARTS

- Classical Languages
- Communication
- Communications/English*
- English
- French
- German
- History
- Interdisciplinary Studies
- International Language Business
- Philosophy
- Spanish
- Theology and Religious Studies

BACHELOR OF SCIENCE

- Accounting
- Biochemistry
- Biology
- Biophysics
- Chemistry
- Chemistry-Business
- Chemistry-Computers
- Computer Information Systems
- Computer Science
- Criminal Justice
- Economics
- Elementary Education
- Finance
- Electronics Engineering
- Electronics-Business
- Gerontology
- Health Administration
- Human Services
- International Studies
- Liberal Studies*
- Management
- Marketing
- Mathematics
- Medical Technology
- Neuroscience
- Nursing
- Physical Therapy
- Physics
- Political Science
- Production and Operations Management
- Psychology
- Public Administration and Public Affairs
- Secondary Education
- Sociology

ASSOCIATE IN ARTS*
ASSOCIATE IN SCIENCE*

- Business
- Criminal Justice
- Electronics Engineering
- Health/Human Services
- Information Systems
- Political Science
- Public Administration
- Social Relations/Gerontology

*Available through Dexter Hanley College only.

THE SCRANTON PLAN

The product of a two-year study by a faculty-student-administration committee, the Scranton Plan seeks traditional Jesuit university educational objectives in the era of the knowledge explosion. In departing from a core curriculum of specifically required subjects, it acknowledges that there are today many more requirements for a liberally educated person than was formerly the case: disciplines, especially in the natural and social sciences, not known a century ago; foreign cultures thought insignificant only fifty years ago.

The University's General Education Curriculum, in seeking to equip undergraduates with the ability to communicate their knowledge effectively, takes note that there are today many more ways to communicate than in the past. Computer and other quantitative languages, applied fine arts as aesthetic languages, writing and oral communication laboratories may develop the ability to communicate with others and carry on the University's traditional emphasis on rhetoric as cogently as the study of Latin and Greek in the past, or even of modern foreign languages in today's world of intensified international relations. Different students will have different communication interests and it is a virtue of the Scranton curriculum that its flexibility can accommodate and utilize that interest.

Finally, the Scranton Plan takes note that students have criticized the absence of a study of values on American university campuses, the failure of the universities to deal with philosophies of life which provide the means to evaluate the norms of national and personal actions. The Scranton curriculum provides a significant place for the study of philosophy, the theological tradition of the student, and comparative religions. This too continues a traditional emphasis in the University's educational pattern but allows the student flexibility in choosing to meet third and fourth year general education requirements through either theology or philosophy, in opening up more opportunities for the study of human values through related courses in psychology, sociology, environmental sciences, etc., and in making it more feasible to carry a double major in theology or philosophy along with the student's primary major.

CURRICULAR OUTLINE

Major Field of Concentration ..... 36 credits
Cognates Related to Major ..... 24 credits
General Education ..... 67 credits
Residency Requirements ..... 63 credit minimum, including the last 30 credits

Major: 36 credits in the major field of concentration is the normal amount. Some departments require less, the minimum being 30 hours with the unallocated credits going into the other curricular areas. Several departments, especially in the physical science area, require more than 36 hours, the additional credits coming from the cognate area and/or as overloads beyond the normal 127 credits needed for graduation. The specific departmental curricular models on subsequent pages of the Bulletin should be consulted. Students desiring to shape an interdisciplinary major should consult their Academic Dean on their program.

Cognate: These are courses external to the major field of concentration, but which round out the student's competence in his major through the study of related disciplines and subject matter, or through the acquisition of skills useful to his or her specific vocational goals. Normally the cognate area will consist of 24 credit hours, some of which may be specified by the department and others chosen by the student according to his or her particular interests or objectives.

General Education: Shunning a merely technical or pre-professional education, the majority (67) of the student's 127 credits toward the degree are devoted to a broad liberal education according to the following typical pattern.

A. **Physical Education**—Four one-credit courses in the freshman and sophomore years ..... 4 credits

B. **Distribution of remaining credits into broad areas of knowledge as indicated in the table** ..... 63 credits

In some instances, departmental recommendations are made with respect to the general education courses; departmental curricular models should be consulted. In fulfilling the distribution requirement, students ought ordinarily to complete at least five two-course sequences to provide depth as well as breadth in their general education.

C. **Communication Skills**—Unlike many college curricula, the Scranton curriculum does not require specific courses in English grammar. Rather, because of its recognition that writing and speaking effectively are skills necessary for success in college and in one's later professional life, the University of Scranton requires that students demonstrate basic competencies in written and oral communication before their junior year. Each of these competencies may be demonstrated by the students in one of the following ways:

1. An examination supervised by Communication department faculty (for COMM. 100) and by English department faculty (for ENGL. 110).

2. Successful completion (a grade of C or higher) of courses set up to facilitate mastery of these skills: Communication 2 for oral communication; English 110 (or appropriate AP course) for writing skills.

D. **Non-Classroom Activities**—With the approval of the Academic Dean and the department, the student is encouraged to petition beforehand that certain non-classroom activities such as travel abroad, internships, participation in artistic productions, sustained activity in political, social, or religious organizations, etc. be supervised, evaluated, and accepted for academic credit—normally in the Free Area of the General Education distribution.

DOUBLE MAJOR PROGRAM

Students at the end of the first semester of freshman year or thereafter may elect to pursue a second field of concentration in addition to their first major. The permission of the appropriate Dean and the agreement of the two pertinent departmental chairpersons should be obtained in writing at this time and placed in the student's file. A second major will consist of all major and required cognate courses. Except for double majors involving Education and a content area, a second major will not be awarded for less than 18 credits in the second field which are not counted as part of the first major. The 67 credits in the General Education area need not, of course, be repeated. The Registrar's office will add the notation of the second major to the student's transcript in the first month of the student's senior year by which time he/she should have registered for all the courses required in the double major program. Seventy students in the class of '88 and sixty-two students in the class of '89 graduated with double majors.

SECOND DEGREES

Persons with good scholastic records and a baccalaureate degree from a regionally accredited institution, who wish to earn a second baccalaureate degree, must apply to Dexter Hanley College.

Candidates for a second baccalaureate degree are expected to complete a minimum of 63 semester hours at the University of Scranton beyond the completion of the studies for the first degree and pursue a discipline disparate from the discipline of the first degree. No semester hours from the first baccalaureate degree can be used toward this 63 semester hour requirement.

University of Scranton graduates may also pursue a second baccalaureate degree through Dexter Hanley College. Grades for courses taken after completion of the requirements for the first baccalaureate degree will have no effect on the final Q.P.I. of the first degree.

MINORS

Minors, which require a minimum of 15 hours, are currently available in the following fields: Art History, Biology, Business, Chemistry, Biochemistry, Communication, Computer Information Systems, Computer Science, Criminal Justice, English, Foreign Language, Gerontology, History, Health and Human Services, Health Administration, Mathematics, Music Literature, Philosophy, Physics, Political Science, Public Administration, International Studies, Psychology, Sociology, Studio Art, Theatre, and Theology. Consult departmental listings for details.

Courses counted toward a major may not be counted toward a minor. However, courses counted toward a cognate or general education courses may be used to fulfill minor requirements.

SUMMER SCHOOL

The University of Scranton annually offers a Summer School of two sessions to allow students to accelerate their degree programs or to make up courses that may not have been completed during the regular semesters.

University of Scranton students who have completed their sophomore year (60 credits) are permitted with the prior written permission of the appropriate Dean to attend summer sessions of other four-year colleges or universities; on the same basis, those who have not completed sophomore year are permitted to take courses at accredited four or two-year institutions. Grades below C received elsewhere are not transferable to the University of Scranton; no grades from other institutions are computed into the student's quality point index.

DISTRIBUTION TABLE

General Education Areas	MAJOR FIELDS					
	Nat. Sci. ‡ *Math Psych. Comp. Sci. Nursing* ‡ *Physical Therapy* ‡	HS HADM *Sociology* † *Pol. Science Criminal Justice Economics*	*English History Modern Language*	*Philosophy Theology*	*Communi-cation*	*Accounting Finance Management Marketing Production & Operations Mgt.*
	a	*b*	*c*	*d*	*e*	*f*
I. Natural Science & Quantitative Studies (Natural Sciences, Math, Psychology*, Adv. Computer Sci., Statistics)	—	9	9	9	9	12
II. Social and Bahavioral Sciences (Sociology, H/HS, Economics, Pol. Sci., Geog., Psychology *, M.S. 301, Education)	12	—	12	12	6	6
III. Communications (Speech, Writing, Elementary and Intermediate Languages, ** Studio Art**, CMPS 104, 106, 134, 144)	9	9	9	9	—	9
IV. Humanities (History, English and Foreign Literature, Advanced Language, ** Art History, Music)	18	18	6	18	18	18
V. Philosophy and Theology *** Philosophy Theo./Religious Studies	*6* (6) 6	*6* (6) 6	*6* (6) 6	*6* (6) 6	*6* (6) 6	*6* (6) 6
Free Area	*6*	*9*	*9*	*9*	*12*	*3*

CREDITS

‡ Specific reductions in General Education hours are allowed in certain natural science and health professional fields.

† Sociology allows 12 credits in Free Area, and requires 21 credits in Area IV. Humanities.

* Psychology 210, 230, 231, and 235 are Area I; all others are Area II.

** If a student has completed AREA III, as many as two elementary language courses and two intermediate language courses (all in the same language) may be used in AREA IV. The same provision applies for studio art courses. (Students should note (see p. 87) that Elementary language courses in any language are not available to students who have taken 2 or more years of high school work in that language.

*** Area V requires 6 credits in Theology (T/RS 121-122), 6 credits in Philosophy (Phil. 120 and Phil. 210), and 6 more in either field.

FRESHMAN OPTION: GENERAL AREA STUDIES

Students not yet ready to declare a major have the option of selecting one of four General Areas of study (Humanities, Natural Science, Social Science, Business), with the particular major to be determined in consultation with the appropriate Dean's office by the end of freshman year. Curriculum outlines for the General Areas are indicated below. Students in the General Areas of Study will participate in a Freshman Year advising seminar.

General Area: Humanities*

			Fall	Spring
MAJOR/ COGNATE	Two sequences from Hist. 110-111, Hist. 120-121, Engl. 140-164, Comm. 110-210, Lang. 211-212 or 311-312		6	6
GE AREA I	Nat. Sci./Quant.	Elective	0-4	0-4
GE AREA II	Social/Behavior	Electives	3	3
GE AREA III	Communications	Electives	3	3
GE AREA V	Phil. 120 or T/RS 121	Intro. to Phil or Theo.	0-3	0-3
PHYS EDUC	Advising Seminar/Phys. Ed.	Advising Seminar/Phys. Ed.	1	1
		Total	16/17	16/17

General Area: Natural Science*

MAJOR/ COGNATE	Two or three sequences from Biol. 141-142, Chem. 112-113, Phys. 140-141, Math 103-114, (or 114-21), Math 142-114, CMPS 134-144**		8½-13	8½-13
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities**	Electives	0-3	0-3
GE AREA V	Phil. 120 or T/RS 121	Intro. to Phil.or Theo.		3
PHYS EDUC	Advising Seminar/Phys. Ed.	Advising Seminar/Phys. Ed.	1	1
		Total	15½/17	15½/17

General Area: Social Science*

MAJOR/ COGNATE	Two sequences from Psych 110-Elective, Soc. 110-112, Soc. 110-Gero. 110, Pol. Sci. 110-111, Pol. Sci. 120-121, H/HS 111-112, Soc. 110-CJ 110, Educ. 222-121,		6	6
GE AREA I	Nat. Sci./Quant.	Elective	0-4	0-4
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120 or T/RS 121	Intro. to Phil. or Theo.	0-3	0-3
PHYS EDUC	Advising Seminar/Phys. Ed.	Advising Seminar/Phys. Ed.	1	1
		Total	16/17	16/17

General Area: Business

MAJOR/	Econ. 151-152	Principles of Economics I-II	3	3
GE AREA I	Math	Math Option	3/4	3/4
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120-T/RS 121	Intro to Phil-Theo	3	3
PHYS EDUC	Phys. Ed.	Phys. Ed.	1	1
		Total	16/17	16/17

* Students in General Areas of Humanities, Natural Science, and Social Science will select courses in consultation with Dr. Mary Engel, Associate Dean of CAS, and the faculty advisors in the Academic Advising Center.

** Natural Science students who select only two MAJOR/COGNATE sequences will take two Humanities courses in place of a third sequence. Students who select Phys. 140-141 must also take Math 114-221. Students who select CMPS 134-44 must also take Math 142-114.

ACADEMIC REGULATIONS

DEGREE REQUIREMENTS

In order to earn a bachelor's degree from the University of Scranton the student must complete all the courses prescribed in the curriculum table of the major. No student will be eligible for graduation who has not removed all failures in required courses or who has not earned the necessary minimum 2.0 (C average) Quality Point index.

A student must maintain a 2.0 QPI in the major and required cognate courses; students who do not meet this standard will be informed that they need to change their major; they will be placed in either an "Exploratory" or a "Goal Attainment" semester; they will need to be accepted into a new major (or remedy their deficiency in the original major) within two semesters (or, in the case of DHC students, within 30 credits). It is understood that this standard does not apply to Education majors, who must already meet a more stringent standard (no grade below C in EDUC or content area courses; 2.5 QPI), or to other majors in departments which set more stringent standards.

Receipt of the degree is not automatic. Seniors expecting to graduate in the spring should make formal application to the Registrar's office by February 15.

GRADING SYSTEM

Grade reports are mailed to all students at the end of each semester and these become part of the official record of the student. Freshmen receive mid-semester grades to inform them of their progress. Upperclass students receive notice at the quarter if they are "deficient" and in danger of failing the course at that time.

A, A−	Excellent (outstanding and/or original work)
B+, B, B−	Good
C+, C	Satisfactory
D+, D	Passing but well below average
F	Failure (below minimum acceptable standards)
W	Withdrew officially; deadline is one month before the end of the semester.
I	Incomplete must be removed by mid-term of following semester.
S, P	Satisfactory, Pass—not figured in Quality Point Index
U	Unsatisfactory
Audit	Course not taken for credit. (Change to Audit can be made only by passing students and before end of first half of semester.)

UNSATISFACTORY: Equivalent to failure.

INCOMPLETE: If a course has not been completed because of illness or some other serious reason, an Incomplete may be given. To remove this grade the student must satisfy all course requirements by the mid-term of the following semester. Any course not completed by this time will result in a grade of F.

REPEAT OF COURSE: Special permission is not needed to repeat failed courses; however, prior approval of the Dean is needed to repeat non-failed courses.

CHANGE OF GRADE: A student who believes the grade received for a course is unreasonable should first appeal the matter to the professor, whose decision is normally final. The student has the right, however, to appeal to the faculty member's chairperson, who will make a recommendation in writing to his or her Dean. The student may request the Dean to review the matter. The decision of the Dean is final. Ordinarily, no grade change will be considered unless it has been raised to the level of the Dean's office within one month from the time the original grade was submitted to the Registrar's office.

COURSE NUMBERING SYSTEM

Courses appearing in this bulletin are numbered according to the system described below. The *first* digit of any course number indicates the *level* of the course; the *second and third* digits specify *categories* of courses. Levels at which courses are offered include the following:

100-199	introductory courses
200-299	lower division courses
300-399	upper division courses
400-499	advanced undergraduate courses

500 and above are graduate courses

Categories in which courses are offered are indicated according to the following system:

__00–__09	General education courses not available for major credit (100-109, 200-209, 300-309, 400-409)
__10–__39	Courses which may apply either to major or general education requirements (110-139, 210-239, 310-339, 410-439)
__40–__79	Courses available for major (also minor and required cognate) credit (140-179, 240-279, 340-379, 440-479)
__80–__81	Practicum, Internship or Co-op courses (180-181, 280-281, 380-381, 480-481)
__82–__83	Independent study courses (182-183, 282-283, 382-383, 482-482)
__84	Special topics (184, 284, 384, 484)
__85–__89	Honors Courses (185-189, 285-289, 385-389, 485-489)
__90–__91	Seminars (190-191, 290-291, 390-391, 490-491)
__93–__94	Research (193-194, 293-294, 393-394, 493-494)
__95–__96	Travel courses (195-196, 295-296, 395-396, 495-496)
498–499	Thesis

Labs are indicated by an L following the course number of the corresponding lecture courses. Specific prerequisites are listed, where applicable, preceding individual course descriptions in this bulletin.

QUALITY POINT INDEX

A standard used in judging a student's performance is the Quality Point Index (QPI) determined as follows:

Each semester hour of credit with a grade of A is valued at 4 quality points: A– at 3.67 quality points; B+ at 3.33; B at 3.0; B– at 2.67; C+ at 2.33; C at 2.0; D+ at 1.5; D at 1.0. An F yields no quality points. Thus, for example, a three-credit course with the grade A yields 12 quality points; a B yields 9; a C yields 6.

The Quality Point Index (or Quality Point Average) commonly abbreviated QPI (or QPA) is computed by dividing the total number of Quality Points earned by the total number of credits attempted. For example, 15 credit hours, all at C grade, would earn 30 Quality Points or a 2.0 QPI (30/15).

The total number of credit hours attempted include those courses with final grade F as well as A, B, etc. Notice this Quality Point Index applies only to courses taken at the University of Scranton and is not affected by credits transferred from other colleges.

A Quality Point Index listing is made at the end of each semester. On the basis of his or her cumulative Point Index, a student's rank in class and eligibility for honors at graduation are determined.

GRADUATION HONORS

To be eligible for graduation and for honors at commencement, a student must have completed a minimum of 63 credit hours of work at the University of Scranton.

Summa cum laude..... 3.85 Quality Point Index in all subjects
magna cum laude..... 3.65 Quality Point Index in all subjects
cum laude..... 3.50 Quality Point Index in all subjects

DEAN'S LIST

To be eligible for the Dean's List, a day school student must complete a full program (12 credits minimum; Pass-Fail courses are not included in meeting this minimum). Those students whose QPI for the given semester ranks them in the top 20% of their class are named to the Dean's List for that semester. (A Dexter Hanley College student will merit the Dean's List by achieving a QPI of 3.3 for 9 credits.) Names of those on the Dean's List are published each semester and transcripted.

PROBATION AND DISMISSAL

One semester of probation is granted to students whose QPI falls below 2.0, or who otherwise are in danger of dismissal. A second semester of probation is not automatic; a student who does not remove himself or herself from probation after one semester is subject to dismissal, unless excepted by the appropriate dean. Students who receive an F while on probation are also subject to dismissal, as is any student who incurs 2 F's in one semester, or who has accumulated three F's which have not been successfully retaken. Probationary status may be removed through adequate achievement in summer school or January intersession at the University of Scranton.

Students on Academic Probation are allowed to take no more than 14 credits (in Dexter Hanley College, no more than 12 credits) during the fall or spring semesters without explicit written approval of the appropriate Dean. Students on probation are ineligible to participate in any co-curricular activities, with the exception of departmental clubs with an academic orientation. Intercollegiate athletics, dramatic and theatrical productions, debate, and Student Government are prohibited.

It is University policy in the case of a student dismissed from another institution or a college of the University itself that this student will not be allowed to register for courses in any of the colleges of the University in the semester following dismissal.

If a student who has been dismissed from the University wishes to apply for readmission to the University, he/she may do so no sooner than one full semester after the semester in which the dismissal took place. Readmission is not automatic; the student will need to demonstrate that the conditions which led to his/her dismissal will not present a continuing problem. If a student is dismissed a second time from the University, he/she may not apply for readmission.

ABSENCE FROM CLASS

Freshmen are limited by University regulations to twice as many absences as class meetings are held per week in a particular course. Thus six cuts are allowed by freshmen in courses that meet three times a week, four cuts in courses that meet twice a week. Upperclassmen have unlimited absences unless the particular professor or the department promulgates in writing some other policy. However, the professor may not promulgate a policy that is stricter than the freshman policy on class absences.* In any event, students miss class at their own risk. Any student who exceeds the cut policy is subject to a failing grade in that course. These regulations cover all absences for whatever reasons.

*Exceptions to this restriction require the approval of the department chairpersons. In summer and intersession courses no student is allowed more than two cuts.

PASS-FAIL OPTION

Students whose QPI is 2.67 or better may elect to take some courses on a pass-fail basis. Students choosing the pass-fail grading option for a course must file the appropriate form in the Registrar's Office by the end of the second week of the semester (or by the third day of an Intersession or Summer session course). Specifically required courses, whether in general education or a major, MAY NOT be taken on a pass-fail basis; introductory courses available only for general education credit (i.e., those numbered 101—109) MAY NOT be taken on a pass-fail basis; courses in a student's major, minor, or cognate MAY NOT be taken on a pass-fail basis. Students may not take more than one academic course at a time on a pass-fail basis; no more than one course per year, on average (other than internships, practica, or physical education courses), during their degree programs.

READER COURSES (INDIVIDUAL STUDY)

The primary purpose of a reader course is to enable a University of Scranton student to pursue a course of study not otherwise offered during the term the reader is taken. Readers may NOT ordinarily be used to fulfill general education requirements. Students may take no more than one reader per term, nor more than one reader per year, on average, during the course of their degree programs. Readers are to be taken for the same number of credits as are granted similar courses in the discipline in which the reader is offered. Readers may not ordinarily be used to repeat failed courses. Exceptions to these policies must be approved by the dean of the student's college and by the dean of the school offering the course.

LATE REGISTRATION

In courses following a standard schedule (three 50 minute periods per week), no new student may be admitted after 4 class hours. Interpretation of the late registration policy for courses following non-standard schedules must be rendered by the appropriate Dean.

WITHDRAWAL FROM A COURSE

A student wishing to withdraw from a course should first discuss the matter with the instructor. Withdrawal always entails financial loss. If the student believes withdrawal necessary, he or she should obtain the form for this at the Registrar's Office, or from Dexter Hanley College, have it signed by the instructor and by the appropriate Dean and then return the form to the Registrar's Office or to Hanley College. Any tuition credit is based on the date on which the completed form is returned to the Registrar's Office. (See the Calendar on the inside front cover of this catalog.) Failure to withdraw officially from a course may result in a failing grade for the course. The absolute deadline for withdrawing from a course is one month before the last class day of the semester.

WITHDRAWAL FROM THE UNIVERSITY

Students desiring to withdraw from the University should discuss the matter with the appropriate Dean. The student should also discuss the question with his or her advisor. The form for withdrawal can be obtained in the Registrar's Office. It must be signed by all of the student's instructors, by the Counseling Center and by the Dean. Similarly, the Dean of Students initials the form to indicate that the student has returned his or her ID card, and the Library and Treasurer's Office initial the form to indicate that the student's financial accounts with the University are settled. Any tuition refund is based on the date on which the completed form is returned to the Registrar's Office.

GENERAL REGULATIONS

Ordinarily, all entering students—both freshmen and transfer students—are held to the requirements in the catalog of the year in which they enter.

The University reserves the right to modify admission requirements at any time; the right to cancel any course without prior notice to the students; change the arrangement of courses, the requirements for graduation, degrees, tuition, fees and other regulations affecting the student body.

The University reserves the right to take appropriate disciplinary action in the case of any student who conducts himself or herself contrary to the standards of the University. These standards (particularly in the area of Academic Integrity), are given clear expression in the Faculty and Student Handbooks of the University.

HONOR SOCIETIES

Those National Honor Societies which are represented in the University of Scranton are listed below in order of the foundation of the local chapters. An asterisk (*) after the name indicates that this National Honor Society is a member of the Association of College Honor Societies.

ALPHA SIGMA NU*

The National Jesuit Honor Society founded in 1915 with chapters in 28 Jesuit universities throughout the United States. The Scranton chapter was founded in 1943, the oldest Honor Society in the University. It is the only Honor Society open to students and faculty in all disciplines and all colleges of the University. Its admission standards are the most rigorous. The Greek letters signify *adelphotes skolastikon nikephoron* — brotherhood of honor students. Juniors and Seniors who have distinguished themselves in scholarship, loyalty and service are eligible for membership. Appointment is made by the President of the University on the recommendation of the moderator and nomination by chapter members of the Society. From 1982-1985, Dr. William Parente, Professor of History and Political Science, served as national president of the 20,000 member organization.

The Society annually presents the Alpha Sigma Nu University award for teaching. The recipients of the Award:

1969 Prof. Lawrence Mann†
1970 Prof. Frank Brown†
1971 Prof. Thomas Garrett
1972 Prof. Michael DeMichele
1973 Prof. Bernard Williams
1974 Rev. Bernard Suppe, S.J.
1975 Rev. Edward Gannon, S.J.†
1976 Prof. Robert A. Sallavanti
1977 Prof. John P. McLean
1978 Prof. Charles J. Thoman
1979 Prof. Urban von Wahlde
1980 Prof. J. Brian Benestad
1981 Atty. John J. McGee
1982 Prof. Harold Baillie
1983 Prof. E. Springs Steele
1984 Prof. John Earl
1985 Prof. Michael C. Cann
1986 Prof. Joseph T. Evans
1987 Prof. Richard Klonoski
1988 Rev. Ronald H. McKinney, S.J.
1989 Prof. Stephen Whittaker
1990 Prof. Brian W. Carpenter

Dr. Brian W. Carpenter, Assistant Professor of Accounting, 1990 Winner of Alpha Sigma Nu University Award for Teaching

PHI ALPHA THETA*

International Honor Society in History. Basic requirements: 12 credits in History; Quality Point Index — General 3.0, 3.1 in History. The mu rho chapter was established at the University in 1967.

DELTA MU DELTA*

National Honor Society in Business founded in 1913. Basic requirements: a Quality Point Index of 3.35 with a major in Business or Accounting. The local omega chapter was established in 1968-69.

SIGMA PI SIGMA*

National Honor Society in Physics for undergraduate and graduate students founded in 1921. Its chapters are restricted to colleges and universities of recognized standing which offer a strong physics major. The local chapter was founded in February 1969.

OMICRON DELTA EPSILON*

National Honor Society in Economics. Basic requirements: 12 credit hours in Economics with a General QPI of 3.2 and a 3.0 average in Economics. The local xi chapter of Pennsylvania was founded in May 1969.

PSI CHI*

National Honor Society in Psychology, founded in 1931. This organization has established chapters in 658 colleges and universities in all 50 states. The local chapter was installed in May 1969. Minimum qualifications include a major or minor in psychology, rank in the top 35th percentile in general scholarship, and superior scholarship in psychology.

PHI DELTA KAPPA

International professional fraternity for men and women in education. Membership is limited to graduate students and teachers. Local chapter founded in 1970.

PI GAMMA MU*

International Honor Society in Social Science. Founded in 1924 to improve scholarship in the social sciences and to encourage inter-disciplinary study. Basic requirements: 20 credit hours in social science; Quality Point Index of 3.0. The local alpha epsilon chapter was founded in February 1971. It presents annually the Frank C. Brown Scholarship Medal and the Alpha Epsilon Delta Outstanding Citizen Award.

ALPHA SIGMA LAMBDA

National Honor Society to encourage scholarship and leadership among adult students in continuing higher education. The alpha upsilon chapter was installed here in 1972.

ETA SIGMA PHI

National Honor Society for students of Classical Languages. The Scranton epsilon gamma chapter was founded in November 1972.

PI MU EPSILON

National Honor Society for Mathematics Majors in Junior or Senior year with a general Quality Point Index of 3.0 and a 3.0 average in Mathematics. The local Pennsylvania mu chapter was installed in February 1973.

ALPHA MU GAMMA

National Honor Society for students of Foreign Languages. Founded in 1931. The Greek letters signify *amphi mouse glosson:* for the muse of languages. The Scranton chapter of theta iota was installed in May 1973.

DELTA SIGMA RHO-TAU KAPPA ALPHA*

National Honor Society in Forensics. Founded in 1963 through merger of societies founded in 1906 and 1908 respectively. The local chapter began in 1975.

DELTA TAU KAPPA International Social Science Honor Society founded in 1961 is dedicated to high scholastic achievement. The Pennsylvania beta chapter was installed at the University of Scranton in October 1975. Requirement: QPI of 3.5 and 20 credits in social science.

PHI LAMBDA UPSILON

National Honorary Chemical Society established in 1899. The Scranton beta kappa chapter, one of 60 chapters nationwide, was installed in October 1975. For students with 24 credits in chemistry and a 3.0 QPI.

ALPHA EPSILON DELTA*

The National Premedical Honor Society founded in 1926. The Pennsylvania iota chapter was installed at the University in May 1976.

THETA ALPHA KAPPA

National Honor Society in Theology and Religious Studies founded in 1976 at Manhattan College. The University of Scranton alpha nu chapter was installed on April 4, 1980. Twelve credits in theology with a 3.5 QPI are needed for membership.

SIGMA TAU DELTA*

National Honor Society in English founded in 1924, this organization is for students who major or minor in English and rank in the top 35 percent of the class. The local mu omicron chapter first met on April 30, 1980.

ALPHA EPSILON ALPHA

An honor society founded April 30, 1980 at the University of Scranton to recognize scholarship in the general field of communications. For communication majors with a 3.3 QPI.

ALPHA KAPPA DELTA*

International Honor Society for sociology students founded in 1920. Requirements include 18 credits in sociology with a QPI of 3.0 overall and in sociology. The Pennsylvania upsilon chapter was founded here on May 8, 1980.

SIGMA XI

International Honor Society in Scientific Research founded in 1886. The local club was chartered in 1968 and has been authorized since 1979 to induct as associate members undergraduate or graduate students showing outstanding promise in original research.

PI SIGMA ALPHA*

National Honor Society in political science founded in 1920. The kappa iota chapter at the University of Scranton was installed on May 9, 1980. Membership limited to students with at least 10 credits in political science, a QPI of at least 3.0 in these courses, and overall rank in the upper third of the class.

ALPHA PHI SIGMA*

The National Criminal Justice Honor Society founded in 1942. Our local epsilon zeta chapter was installed in May, 1982.

PHI SIGMA TAU*

National Honor Society for students of philosophy. The Pennsylvania tau chapter was installed in May, 1982.

UPSILON PI EPSILON

National Computer Science Honor Society. The local gamma chapter was chartered in the spring of 1985.

SIGMA THETA TAU*

International Honor Society in Nursing founded in 1922. Requirements: completion of one half of the curriculum, demonstrated ability in nursing, and a QPI of 3.0. Our Iota Omega Chapter was chartered in April, 1988.

SPECIAL PROGRAMS

SPECIAL JESUIT LIBERAL ARTS PROGRAM

The University's Special Jesuit Liberal Arts Program, available by invitation and application, provides an alternate way of fulfilling a student's General Education requirements. The distribution of courses for members in this program, as indicated below, attempts to foster the following skills:

1. An understanding of key achievements in the literature, history, philosophy, theology and science of our Western classical and Christian heritage.
2. An ability to apply logical, systematic and critical reflection on any given intellectual problem.
3. An understanding of and sensitivity towards the contemporary problems of our day, especially those involving economic, social and political justice.
4. An outstanding ability to communicate clearly and persuasively one's ideas through both the spoken and written word (what Jesuits have historically referred to as "eloquentia perfecta").

Students are also encouraged to become involved in the extra-curricular activities of campus life, to travel abroad if possible, and to provide service to their community.

Above all, students are expected to seek out and interact with the professors who are part of this program, which is under the direction of Rev. Ronald H. McKinney, S.J.

Dept. and No.	Fall Semester	Spring Semester	Credits	
	FRESHMAN			
MAJOR/COGNATE	Major/Cognate	Major/Cognate	6-8½	6-8½
Foreign Language *	Modern or Classical	Modern or Classical	3	3
Phil 120-210	Intro to Philosophy	Ethics	3	3
T/RS 121-Engl. 210	Theology I	Advanced Composition	3	3
Ph. Ed.	Physical Education	Physical Education	1	1
			16	16
	SOPHOMORE			
MAJOR/COGNATE	Major/Cognate	Major/Cognate	9-12½	9-12½
Econ. 110-N. Sci. 110	Contemporary Economic Issues	Scientific Ideas	3	3
Phil. 216-311	Logical/Rhetorical Analysis	Metaphysics	3	3
Ph. Ed.	Physical Education	Physical Education	1	1
			16	16
	JUNIOR			
MAJOR/COGNATE	Major/Cognate	Major/Cognate	9-/11½	9-/11½
T/RS 122-Hum 313	Theology II	Jesuit Experience	3	3
Hum 311-312	Masterworks I	Masterworks II	3	3
Phil. Elec.-322	Philosophy Elective	Philosophy of Conscience	3	3
			18	18
	SENIOR			
MAJOR	Major	Major	6	6
Hist. 120-121	Europe: 1500-1815	Europe: 1815-pres.	3	3
Phil 318-Engl. El.	Social Justice	English Lit. Elective	3	3
T/RS-Phil. 321	Theology Elective	Philosophy and Lit.	3	3
			15	15

TOTAL: 130-147 credits
Depending on major

* or students may take Greek Culture, Hum. 111 and Latin Culture, Hum. 112.

HUM. 111 Dr. Klonoski
Greek Culture 3 credits
In this SJLA course students will engage in a rudimentary study of Classical Greek including language structure and extensive vocabulary. One goal will be to demonstrate, through etymological and derivation studies, that much of English is derived from Greek. There will also be a corollary study of the history of ancient Greece. The course culminates in an intensive study of selected Greek texts in English translation. These texts will be read in the light of their linguistic, cultural, historical, religious and philosophical contexts. In the end, it is hoped students will learn, through the study of a foreign language, to read texts in their contexts.

HUM. 112 Dr. Wilson
Latin Culture 3 credits
The purpose of this course is to allow the student to acquire a basic knowledge of the working of the Latin language, as well as a substantial knowledge of the political, cultural, military and intellectual life of first century Rome, through a thorough study of Cicero's *De Natura Deorum* and related readings.

HUM. 311
Masterworks I 3 credits
In this SJLA course designed to improve oral skills, students will read and be tested on six classics of world literature. E.G., *Odyssey, Oresteian Trilogy, Confessions, Purgatory, Canterbury Tales,* and *Don Quixote.*

HUM. 312
Masterworks II 3 credits
In this SJLA course designed to improve oral skills, students will read and be tested on six or seven major classics of world literature. E.G., *King Lear, Tempest, Madame Bovary, Paradise Lost, Faust, Brothers Karamazov, Long Day's Journey Into Night.*

HUM. 313 Staff
The Jesuit Experience 3 credits
In this SJLA Theology course, students will examine the history, traditions, and spiritual ideals of the Society of Jesus. Through interaction with many Jesuits on campus, students will be challenged to develop their own religious lifestyle.

NSCI 110 Dr. Dickneider
Scientific Ideas 3 credits
A multidisciplinary examination of several current topics in Science designed to demonstrate the role of models, inquiry, and experimentation in the development of scientific concepts. The topics selected demonstrate how Science works - when it works correctly and when it goes astray.

HONORS PROGRAM

The Honors Program provides selected students with greater depth and breadth in their education through seminars and directed independent work. Participants in the program take interdisciplinary courses and seminars as well as tutorials both in and out of their major field. They also complete and defend a project in their major.

Honors courses are designed to intensify the general education requirements. Offerings have included such courses as Victorian Studies, Science and Society, and The Rise of Scientific Thinking. One course is required of each Honors student.

An Honors Tutorial is an exploration of a topic on an individually directed basis. The student meets with a mentor weekly throughout the semester. Three tutorials are required of each Honors Student—at least one in and one outside the major. A fourth and fifth tutorial may be taken if the student desires. These tutorials count toward major, minor, cognate, or general education requirements.

In the Honors Seminars a small group of Honors Students meet weekly with the Director and Assistant Director. The Junior Seminar is based on an interdisciplinary reading list; the Senior Seminar is based on the Senior Honors Projects. Since these seminars are over and above ordinary graduation requirements, there is no tuition charge for them.

The Senior Honors Project involves an intensive exploration of a specialized topic. It can be either academic or professional in nature. The student defends the finished project before a board of three faculty members who judge whether it is of Honors caliber.

In their final semester, Honors students can receive a scholarship for up to two courses, provided they are over and above graduation requirements.

ADMISSION TO HONORS PROGRAM

Applications are accepted every fall from those students who have at least eighteen hours of college credit and who expect to graduate after three more years of work at the University. Applicants must ordinarily have at least a 3.3 QPI; a minimum of a 3.5 QPI (cum laude) is required for graduation in the Program. The number of spaces in the program is limited, and acceptance is based on the applicant's high school and college records, SAT scores, recommendations, application, and interviews. For further information contact Dr. Ellen Casey, Director of the Honors Program.

SCHEDULE

	Fall	**Spring**
Sophomore Year:	Application	Hum. 286 or SS 286
Junior Year:	1 or 2 tutorials	1 or 2 tutorials Honr. 387: Junior Honors Seminar
Senior Year:	Honors Project Honr. 487: Senior Honors Seminar	Honors Project Defense of Project

HUM 286
Victorian Studies
(Formerly HUM 191) This course uses literature to explore 19th century British social and intellectual history. Focusing on the period from 1832-1901, it examines Victorian attitudes toward industrialization, religion, art, and sexuality. (Area IV)

SS 286
Social Science
(Formerly SS 191) This course investigates the principles of scientific method, attempts to determine if these principles are applicable to the study of human social behavior, and reviews several classic contributions to the social sciences. (Area II)

Honr. 387
Junior Honors Seminar
(Formerly Honr. 191) Student-led discussions of contemporary non-fictional works chosen for their variety and their importance.

Honr. 489
Senior Honors Seminar
(Formerly Honr. 192) Student-led discussions of the content, rationale, and methodology of Senior Honors Projects.

Dept. 385-389
Honors Tutorial
(Formerly Dept. 191-192) An exploration of a topic on an individually directed basis.

Dept. 487-489
Honors Project
(Formerly Dept. 195-196) An independent project of academic or professional nature culminating in an oral defense before a board of three faculty members.

Dr. Ellen Casey,
Director of the Honors Program

EASTERN CHRISTIAN STUDIES

SR. JOAN L. ROCCASALVO, *C.S.J., Coordinator*

Fr. Levko, S.J. *Fr. Sable, S.J.* *Sr. Roccasalvo, C.S.J.*

THE EASTERN CHRISTIAN STUDIES CONCENTRATION (ECS) is an interdisciplinary program which holds in great esteem the uniqueness and supreme beauty of the Eastern Christian heritage. For this reason, the program focuses on the impact and contributions of this rich legacy to Western culture. The ECS program encompasses a study of the Byzantine and Slav traditions as well as the Coptic and Near East cultures. The program is offered through the College of Arts and Sciences with Sr. Joan L. Roccasalvo, C.S.J. as coordinator, and the recently established CENTER FOR EASTERN CHRISTIAN STUDIES.

Fr. John J. Levko, S.J. directs the activities of the Center. Fr. Thomas F. Sable, S.J. is the Editor of *DIAKONIA,* an ecumenical journal devoted to promoting the knowledge and understanding of Eastern Christianity.

ECS: A PRACTICAL ASSET TO THE STUDENT

The ECS concentration is practical for a variety of reasons:

1) At no extra cost, ECS provides the student with an easy and systematic way of organizing and choosing electives from areas IV and V, i.e., the Humanities, Theology, Philosophy.
2) 5 of the 8 required courses in one subject area may constitute or contribute to a Minor, e.g., History or Theology.
3) ECS offers a wide variety of subjects within the Liberal Arts tradition: History, Theology, Literature, Fine Arts, Russian, Greek.
4) Considered more than a Minor, the ECS program (24 credits) is officially recorded on a student's transcript in addition to his/her Major.

   Today American businesses value an experience of this kind because when graduates have an understanding of these cultures, it improves the opportunities of corporations to engage in successful business with international competitors.

   The study of Eastern Europe and the Soviet Union deserves the student's attention because of the worldwide influence of these countries in all areas of our experience. The possibilities for pursuing a future profession through academic contact with East Europe and the Soviet Union are virtually limitless.

GOALS OF EASTERN CHRISTIAN STUDIES

1. To foster an understanding and appreciation for the Eastern Christian heritage.
2. To enable the student to become well-rounded by deepening and broadening his/her perception of the human experience.
3. To study the Eastern Christian traditions from a ecumenical viewpoint.
4. To prepare the student to live his/her future in a pluralistic society, much of which has been influenced by the Byzantine, Slav, Coptic and Near East cultures.

AVAILABLE COURSES (ECS 100 required of all students in program)

ECS 100	Culture and the Arts (GE IV) Sr. Roccasalvo, C.S.J.
ECS 123	(MUS 123) Music in Russia (GE IV) Sr. Roccasalvo, C.S.J.
ECS 203	(ART 203) Early Christian and Byzantine Art (GE IV)
ECS 307	(SLAV 307) Masterpieces of Russian and Slavic Literature (GE IV) Dr. Petrovic
ECS 101 & 102	(Russ 101&2) Elementary Russian (GE III or IV) Prof. Peregrim
ECS 211 & 212	(Russ 211 & 212) Intermediate Russian (GE III or IV) Prof. Peregrim
ECS 109	Political and Social Trends in 19th and 20th Century Russian Literature (GE IV) Dr. Williames
ECS 221	(T/RS 221) Prayer (GE V) Dr. Steele
ECS 140	(T/RS 311) Liturgical Theology of the Byzantine Churches. (GE V) Prof. Yevics
ECS 225	(T/RS 225) Intro. to the Theology of the Byzantine Churches (GE V) Fr. Sable, S.J.
ECS 226	(T/RS 226) Intro. to Eastern Liturgies (GE V) Fr. Sable, S.J.
ECS 325	(T/RS 325) Eastern Christian Spirituality (GE V) Fr. Levko, S.J.
ECS 311	(T/RS 311) Intro. to the Greek Fathers (GE V) Dr. Benestad
ECS 235 & 236	(Hist. 225 & 226) Imperial & Revolutionary Russian History; Russian Revolution and Aftermath. (GE IV) Dr. Earl
ECS 317 & 318	(Hist. 319 & 320) Byzantine Civilization (GE IV) Fr. Scott, S.J.

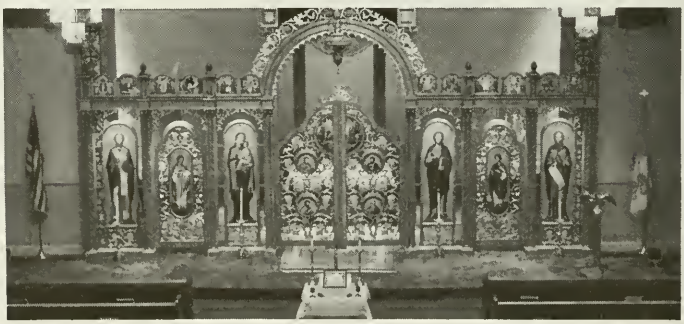
ECS 100 Sr. Roccasalvo, C.S.J.
Culture and the Arts 3 credits
(Required of all students in the ECS program) A study of Eastern Christian culture through their legends and customs, their rituals, music, art, architecture and dance. Includes the cultures of Ancient Greece, Rus'/Ukraine/Great Russia, and the Coptic and Near East cultures (GE IV)

ECS 109 Dr. Lee Williames
Political & Social Trends in 19th and 20th Century Russian Literature.
(Formerly ECS 125) Through a combination of reading some great works of Russian literature, lectures and class discussions will enable the student to gain a knowledge of socio-economic and political tends as well as attitudes in 19th and 20th century Russia. A selected study of the great literature and authors of the period: Lermontov, Pushkin, Gogol, Turgenev, Dostoyevsky, Tolstoy, Chekhov, Gorky, Sholokov, Bunin, Pasternak, and Solzhnitsyn. (GE IV)

ECS 113-114 Prof. Edward Mathews
(Greek 113-114)
New Testament Greek
(No prerequisite) An intensive course in the fundamentals of the grammar of Koine Greek. Attention will be focused on the peculiarities of the Greek found in the New Testament as well as introducing the student to the basic theological, philological, and historical problems of New Testament exegesis. (GE III or IV)

ELEMENTARY and INTERMEDIATE RUSSIAN (ECS 101 & 102, ECS 211 & 212). See section on Foreign Languages on p.

ALSO: Possibility of tutorials in Syriac, Armenian, Aramaic, Coptic.



Center for Eastern Christian Studies.

HUMAN DEVELOPMENT

DR. BUCHANAN, *Director*

This program offers all students, especially those majoring in the behavioral and social sciences, the opportunity to develop a multidisciplinary focus in human development. The academic aims of the concentration are to provide an understanding of: (1) both normal and exceptional development of humans as biological and psychological organisms; (2) the relationship between individuals and family/social environment; and (3) the means to enhance human development, including a field experience in a human development agency.

The 30-credit Human Development concentration is administered by an interdisciplinary board of full-time faculty from the Psychology, Sociology, and Human Resource departments. Students interested in careers and graduate programs in human development should contact the concentration director for more information on course choice and on integrating the concentration with various majors. Students who complete this concentration will have the achievement noted on their transcripts.

The Human Development concentration requires the following:

1) Childhood & Early Adolescence (Psych. 221)
2) Adulthood & Aging (Psych. 222) or Introduction to Gerontology (Gero. 110)
3) Marriage and Family (Soc. 210) or Family Development (HD 224)
4) Abnormal Psychology (Psych. 225)
5) Interviewing (HS 311)
6) Clinical Psychology (Psych. 360) or Theories of Counseling (HS 312) or Introduction to Social Work (Soc. 115)
7) Anatomy & Physiology (Bio. 201) or ABC's of Genetics (Bio. 202) or Biopsychology (Psych. 231) or General Biology Science (Bio. 101-102)
8) Any two of the following: Cultural Anthropology (Soc. 234), American Minority Groups (Soc. 224), Exceptional Child (HD 335), Educational Psychology (Educ. 222), Child Welfare (Soc. 118), Marital & Family Counseling (HD 234), Psychology of Women and Men (Psych. 237), Juvenile Delinquency (S/CJ 214), Group Dynamics (HS 411), or Early Childhood Education (Educ. 240)
9) Field Experience in Clinical Psychology (Psych. 480) or Internship in Human Services (H/HS 480) or Internship in Social Work (Soc. 480)

HUMAN DEVELOPMENT COURSES

HD 224 Dr. Buchanan
Family Development 3 credits
(Formerly HD 124; Prerequisite: Psych 110) This course will explore the reciprocal interactions among children and parents as related to the development of all individuals in the family. Topics to be covered include the roles of family members, parenthood and marriage, parenting at specific developmental stages, and families with single parents, exceptional children, and child abuse.

HD 234 Dr. Norcross
Marital and Family Counseling 3 credits
(Formerly HD 172; Prerequisite: Psych 110; recommended: Psych 145) An introduction to the theory, research, and practice of couples counseling and cojoint family therapy. Topics include family dysfunctions, assessment methods, treatment approaches, innovative techniques, and research findings. (Also listed as HS 234.)

HD 335 Dr. Duricko
Exceptional Child 3 credits
(Formerly HD 165; Prerequisites: Psych 110 and 145) This course will consider atypical social, emotional, and mental development during childhood and adolescence. Topics include mental retardation, intellectual giftedness, learning disabilities, psychopathology of childhood and adolescence, and conduct disorders.

PEACE AND JUSTICE STUDIES PROGRAM

DR. FREIN, *Coordinator*

The Peace and Justice Studies program seeks to contribute to the student's understanding of current social and economic issues and the psychological and political barriers to peace. The program's class activities, conferences and interdisciplinary research will strive to stimulate reflection on global and national peace and justice issues, and thereby, suggest solutions to some of the problems which hinder the establishment of peaceful and just societies.

A Peace and Justice concentration will be an attractive complement to the academic programs of students who are planning careers in law, international relations, human services, ministry and teaching—to name only a few. It will also be attractive to all students who have a personal interest in the problems of peace and justice, regardless of their individual career goals.

The program offers a multi-disciplinary concentration of courses, eight (24 credits) of which are to be taken by the student in order to have "Peace and Justice Concentration" added to the transcript. It is open to majors from the four undergraduate schools of the University, and courses may be taken as part of the Cognate requirement (with permission of the Chairperson of the major) or as part of the General Education requirements.

Courses currently offered which would fit into this concentration are listed below:

A. Theology requirements: (any <u>two</u> of the following:)

Church and Contemporary Social Issues (T/RS 325)
Social Ethics (T/RS 231)
John Paul II and Catholic Social Thought (T/RS 232)
Politics: A Christian Perspective (T/RS 237)
Faith and Justice (T/RS 236)

B. Electives: (any <u>five</u> courses listed below can be counted; others may be included with approval from the program coordinator)

Science and Society (Chem 104)
The Ascent of Man (NSCI 103)
Communication and Socialization (Comm 231)
Political Communication (Comm 311)
Law and Society (S/CJ 210)
The Bill of Rights and Criminal Justice (S/CJ 314)
Black Literature (Engl 131)
Literature of Social Protest (Span 435)
War and Modern Society (H/PS 215)
World Politics (H/PS 214)
The Third World (H/PS 238)
Ethnic and Racial Minorities in Northeastern Pennsylvania (H/PS 224)
Cultural Geography (H/Geog 217)
Philosophy of Culture (Phil 410)
Political Philosophy (Phil 227)
Energy and the Environment (Phys 106)
Geopolitics (Pol Sci 213)
Social Psychology (Psych 220)
Principles of Sociology (Soc 110)
Cultural Anthropology (Soc 234)
Community Organization (Soc 116)
American Minority Groups (Soc 224)
Is Capitalism Christian? (Intd 101)
Politics and Literature (Intd 102)
Contemporary Economic Issues (Econ 110)

C. Integrative Capstone Course: (required in Jr./Sr. year)

Toward a Just and Peaceful World (T/JP 310) 3 credits

This course will reflect on the various issues and problems raised by peace and justice study. It will consider the interrelationship of religion, moral philosophy and the social/political concerns embraced in the quest for a human world order. Faculty from several disciplines will make presentations. Each student will write a paper from the perspective of his/her major area of concentration.

OTHER SPECIAL PROGRAMS

THREE-YEAR BACHELOR'S DEGREE PROGRAM

The University of Scranton's Curriculum and 4-1-4 calendar allow qualified students to attain their bachelor's degree within three years—thus considerably reducing the overall cost of their undergraduate education and allowing the student to enter the market place or begin graduate and professional studies a year earlier. While Advanced Placement or College Level Examination Programs credits (see Index) are very useful for this, a student who does not bring these from high school may still complete the degree program in most majors within three years through the use of January Intersession courses and/or Summer School sessions. This presumes that a minimum, normal academic progress is being made. Typically two Summer Schools (12 credits each) and two or three January Intersessions will suffice. Especially qualified students may be allowed overloads from the appropriate Dean to further reduce this—as will Advanced Placement credits. The Dean should be contacted as early as possible in a student's career in order to facilitate the needed scheduling. Entering freshman students may want to use the Summer School immediately following their high school graduation to further this three-year program; the Dean of Admissions should be consulted with respect to this. Details on the special Scranton Prep-University Seven year (4-3) high school-college degree program are available from the Dean of Studies at Scranton Prep.

FIVE-YEAR BACHELOR-MASTER'S DEGREE PROGRAM

Developed in cooperation with the University's Graduate School, this program enables undergraduates to complete both the bachelor's and master's degree program within five years in the fields of English, Business, Chemistry, Biochemistry, and Human Services. Students elect to enter the program after sophomore year. Ordinarily two summers of study or equivalent January intersessions are needed.

FOUR-YEAR BACHELOR-MASTER'S DEGREE PROGRAM

Qualified undergraduates in the department of history and chemistry have the option of pursuing a four-year program leading to simultaneous conferral of bachelor and master's degrees in history, chemistry or biochemistry. Summer work and the use of 12-13 graduate credits in place of undergraduate courses are involved. The department chairperson should be consulted for details.

STUDY ABROAD PROGRAM

Students with above average (3.0 QPI) academic records are encouraged to participate in the University's Study Abroad Program. This ordinarily takes place in junior year.

The University of Scranton is affiliated with the Loyola-Rome Center and other Jesuit-sponsored programs abroad. It also participates in the International Student Exchange (ISEP). During the past and present years University students have enrolled in the Loyola-Rome Center, Marquette and Saint Louis University programs in Spain, the University of Seville, University College in Galway and Trinity Colleges in Dublin, Beaver College programs in London, the University of Heidelberg, the University of Salzburg, the Chinese university of Hong Kong, the University of Grenoble, Deakin University in Australia, and Kansai University in Japan. Interested students should contact Dr. Mary Engel, the Associate Dean of the College of Arts and Sciences, for more information.

JESUIT EXCHANGE PROGRAM

A variant of Study Abroad is the University's program in conjunction with the 28 Jesuit universities in America by which above-average (3.0 QPI) students may spend one or two semesters of their junior year at another Jesuit institution. These institutions are listed on page 244. In recent years the University of Scranton students have attended Boston College, Loyola University in New Orleans, Santa Clara University, and the University of San Francisco. Consult Dr. Mary Engel, the Associate Dean of the College of Arts and Sciences, for details on this program.

INTERNSHIP PROGRAMS

The University's commitment to internships as an integral part of the educational process is strong and growing. In 1987-88, almost 250 students in the College of Arts and Sciences were engaged in internships carrying academic credit related to their major or vocational goals. 165 of these were seniors—one third of the class—in twelve different majors.

Medical Technology majors spend their senior year in eleven different hospitals in New Jersey, Pennsylvania, Ohio, and New York.

Students majoring in Physical Therapy select internships from some 130 regional and national health care facilities and agencies formally affiliated with the University of Scranton program.

Human Service majors select educational, health, welfare, correctional, rehabilitation, day care, and recreational agencies for their internship settings. Fifty students participated in the undergraduate internship program last year.

Seniors majoring in accounting are eligible to participate in a 13-week on-the-job internship with both national and regional public accounting firms. This internship usually takes place in December-March of senior year. Selection is made on the basis of QPI rating (minimum 2.67) and on interviews by company representatives. In the most recent year, students worked for such firms as Price Waterhouse, Haskins and Sells, Arthur Anderson, Peat, Marwick, Mitchell & Co., Touche, Ross & Co., Ernst & Ernst, Coopers, Lybrand & Co., in New York, Philadelphia, and other cities. Students majoring in Finance, Management or Marketing are also eligible for internships, both in the Scranton region and in their own localities over the summer months.

Communication and English majors served internships with academic credit in a number of newspaper and television situations as well as in public relations, campus journalism, theatre directing and related positions.

Political Science and History majors served pre-law internships in private law firms as well as in the Public Defender's Office, District Magistrate offices, District Attorney's office in Scranton, Philadelphia, and a number of other cities.

Public Administration majors serve internships in their senior year in a public agency at the local, state, or federal level. Placements include the United States Social Security Administration, the Pennsylvania Bureau of Consumer Protection (State Attorney General's Office), and the Pennsylvania Department of Community Affairs.

Computer Science majors participate in the Commonwealth of Pennsylvania's Computer Systems Intern Program, serving 6-month internships in various state agencies in Harrisburg. Students in this department also hold internships in a number of private companies in the Scranton area, in Binghamton and in New York City.

In their junior and senior years, psychology majors taking the field experience course are placed in at least ten different local mental health and social service agencies under individual clinical supervision.

Sociology and Criminal Justice majors spend part of the junior or senior year serving internships in criminal justice agencies (corrections, probation & parole services, the District Attorney's Office, Sheriff's and U.S. Marshall's services, private security and legal work) and social work/human service settings (child-care and juvenile programs, Cancer Society, aging services, etc.)

PRE-LAW PROGRAM

The University is justly proud of its tradition in the field of law. Fully fifty percent of the region's lawyers have done their undergraduate pre-law studies at the University.

The strength of the University's liberal education approach to its pre-law program is indicated by the record of success its graduates have had in winning admittance to the nation's leading law schools. Graduates of recent graduating classes have been admitted to some of the most prestigious schools in the nation, including Columbia, Cornell, Harvard, the University of Pennsylvania and the University of Virginia, as well as Boston College, Boston U., Catholic University of America, Dickinson, Georgetown, Notre Dame, NYU, Rutgers, St. Louis, Temple, Villanova, and twenty other public and private law schools from California to New England.

Pre-Law Curriculum—For admission to law school, no specific undergraduate major is required. In our last senior class the department of history and political science produced the majority of the Scranton graduates admitted to law school. However, students in languages, business, English, education, sociology, communication, law enforcement and psychology also won admittance to law school. The single most important factor in admission is not, therefore, a specific major but rather the degree of academic excellence manifested by the student in pursuing whatever major has been chosen as the particular field of competence.

Skills and Courses—While pre-law students are free to choose their majors, they should give particular attention to the development of those skills which are important for success in the study and practice of law. The General Education program of the University is designed to enable pre-law students to acquire these skills.

I. Comprehension and proficiency in Oral and Written Communication:

The University's freshman courses in Oral Communication (Comm. 100) and Composition (Engl. 110) provide a foundation; pre-law students who complete these courses or whose high school record has exempted them, might then take the following courses offered by the faculty:

Engl. 210—Advanced Composition
Engl. 211—Writing for the Law
Comm. 211—Debate and Argument

The student should also consider participating in the Noel Chabanel Debate Society; the *Aquinas*, the college newspaper; the yearbook; and such campus journals as *Espirit* and *Retrospect.*

II. A Critical Understanding of Human Institutions and Values:

Here the University's courses in the field of history and literature, philosophy and theology are most helpful. The curriculum allows students to use courses of interest as cognates to their major program and as part of the humanities area in the General Education program. British and American Constitutional History (H/PS 317-318, 331, 332) are especially recommended.

III. Creative Power in Thinking:

Legal studies and legal work demand the ability to think clearly, carefully and independently.

It is important therefore that pre-law students cultivate skills in research, logic and critical analysis. Especially recommended are:

Philosophy 215—Logic
Phil. 216—Logical and Rhetorical Analysis
Philosophy 319—Philosophy of Law
Phil. 227—Political Philosophy
Comm. 210—Logical and Rhetorical Analysis

Similarly, quantitative skills are needed. The General Education program allows each student the opportunity for some background in the natural and quantitative or social sciences. Especially recommended as electives or cognates to the major program are:

Acc. 253-254—Accounting	Pol.Sci. 240-241—Social Science Statistics I-II
C/CJ 200—Forensic Chemistry	Math 101-102—Math Discovery

Pre-Law Internships—Interested students with Quality Point Index above 3.0 at the time of application may, with the approval of the Dean, receive academic credit for internships served in the offices of either private law firms or various legal agencies such as the District Attorney, Public Defender, or District Magistrate. Prior approval of the planned internship is necessary. Application forms for these internships are available from the Pre-Law Advisor.

Pre-Law Advisory Team—Continuing advice on course selection, career planning, and the procedures for law school application is provided by a Pre-Law Advisory Team, composed of Dr. Frank X. J. Homer and Dr. Robert Hueston of the History Department, along with the University's Office of Career Services. The Team is assisted by both the:

Pre-Law Advisory Board, a group of regional lawyers which provides for close contact between the local legal community, a range of national law schools, and the University's pre-law program; and the

Pre-Law Society, a student organization which provides a forum for speakers invited on campus to discuss the many aspects of the legal profession.

Law School Admission Test—Along with a student's undergraduate academic record, the LSAT score is a critical factor in the law school admission process. Ordinarily, pre-law students take the LSAT at the end of their junior year. As a means of assisting University students to score up to their fullest potential on the LSAT, on-campus LSAT workshops are offered at least twice each year. These provide University students with an alternative to costly commercial test preparation services.

Dr. Frank Homer,
Professor of History
University Pre-Law Advisor

PRE-MEDICAL PROGRAM

The success of the University's pre-medical program has been outstanding. Notwithstanding the fact that the period 1983-84 through 1987-88 has been the most competitive in the history of American medical school admissions, the University of Scranton placed an average of over 50 students per year into American medical schools. For Fall 1989 the number admitted is 71.

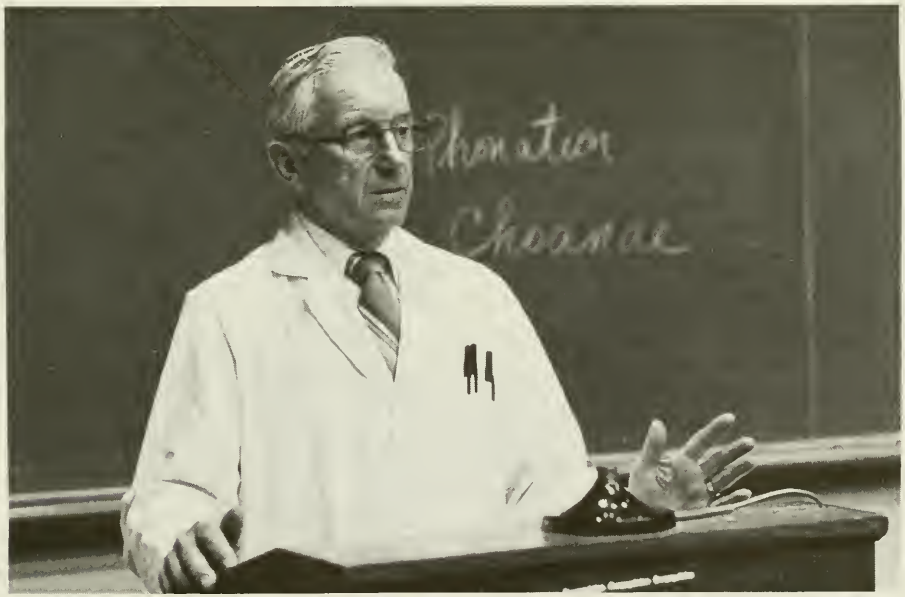
Further, graduates from the pre-professional program have been accepted into dental schools at a rate of 15 per year, and to schools of podiatry, optometry, and other health professions at a rate of 12 per year.

In the past five years, University of Scranton students received approximately 500 acceptances to medical or dental schools including many of the most prestigious in the country. Harvard, Georgetown, Cornell, Columbia, Johns Hopkins, Rutgers, University of Pennsylvania, Hershey, Thomas Jefferson, George Washington, Hahnemann, University of Pittsburgh, Temple, St. Louis University, Medical College of Pennsylvania, Case-Western Reserve, SUNY-Buffalo, Fairleigh Dickenson, the University of Washington at Seattle, the University of Chicago, the University of Oklahoma, and New York Medical College.

In addition, other students were admitted to schools of Osteopathic Medicine and Surgery, Podiatry, Pharmacy, Veterinary Medicine, and Graduate School programs in biology, chemistry, biochemistry, psychology, pharmacology and other health-related fields.

Pre-Medical Curricula—Most pre-medical students major in biology. The pre-medical advisor's specific course recommendations for biology majors are listed on the next page. Students majoring in chemistry, biophysics, or biochemistry at the University are also regularly admitted to medical or dental schools. Entering pre-medical students may also select General Area Studies in Natural Sciences described earlier in this catalog; they should enroll in the Biology and Chemistry sequences.

Biochemistry, biophysics and medical technology provide alternative majors in second, third, or fourth year for those pre-medical biology students who subsequently choose not to apply to medical school.



Dr. Joseph Evans, Professor of Biology, Pre-Medical Advisor.

Recommended Curriculum for Biology Majors—The pre-medical advisor is Dr. Joseph Evans, Professor of Biology. He recommends the following structured curriculum for pre-professional students majoring in biology. Completion of this sequence of courses will satisfy all requirements for the biology major as indicated on pages 44 and 45.

RECOMMENDED CURRICULUM FOR PRE-MEDICAL/PRE-PROFESSIONAL STUDENTS

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN		
			FALL	SPRING
MAJOR	Biol 141-142	General Biology I-II	4½	4½
COGNATE	Chem. 112-113	General & Analytical Chemistry	4½	4½
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	19
		SOPHOMORE		
MAJOR	Biol. 241-242 or 260	Comp. Vertebrate Anatomy or Genetics	4	4
COGNATE	Chem. 232-233	Organic Chemistry I-II	4½	4½
COGNATE	Math 103-114 or Math. 114-221	Pre-Calculus Math.–Calculus Calculus I-II	4	4
GE AREA III	Communications	Elective	3	
GE AREA IV	Humanities	Electives	3	6
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			19½	19½
		JUNIOR		
MAJOR	Biol. 245, 250, 341, 350	Biology Electives	4½	4
MAJOR	Biol.**	Population Course**	4	
COGNATE	Physics 120-121	General Physics	4	4
GE AREA II	Social/Behavior	Elective		3
GE AREA V	Phil. 210-212*	Ethics-Medical Ethics*	3	3
GE AREA V	T/RS 122	Theology II		3
GE FREE	Electives	Electives	3	3
			18½	20
		SENIOR		
MAJOR	Biol. 343, 344, 352, 363, 450	Biology Electives	6	7
GE AREA II	Social/Behavior	Electives	6	3
GE AREA IV	Humanities	Electives	3	3
GE ARE V	T/RS 330*	Biomedical Ethics*		3
			15	16
			TOTAL: 143½ credits	

It is also recommended that pre-professional students take 6 credits of English literature in Area IV, and both Communication 100 and English 110 in Area III. Medical school candidates are urged to add Chem. 450, Biochemistry, in senior year.

* Phil. 212 and/or T/RS 330 are recommended as Area V electives.

** See p. 44 for list of courses in the Population group.

The College of Arts and Sciences

Dr. Paul F. Fahey, Dean

The College of Arts and Sciences is the largest academic division of the University with more than 30 areas of study. Its liberal arts programs serve students well in many different careers. CAS programs also lay the foundation for professional study in law, medicine, and dentistry, as well as for graduate study in various fields.

BIOLOGY

DR. DelVECCHIO, *Chairperson*

Courses in the Department of Biology are designed to achieve the following objectives: 1. to present the fundamental scientific facts and concepts which are needed for an understanding of the living world and people's relation to it; 2. to prepare students for advanced study or work in other biological fields.

The Bachelor of Science in Biology Program supplies preprofessional preparation meeting all requirements and recommendations of professional schools (medicine, dentistry, veterinary medicine).

While the department's record in the preparation of physicians is an impressive one as indicated earlier in the Pre-Medical section, its record as one of the baccalaureate sources of PhD's in the biological sciences is equally prestigious. A 1988 study by the office of institutional research at Franklin and Marshall College shows that over the last 66 years, the University of Scranton ranked 48th out of 877 four-year, private, primarily undergraduate institutions.

The biology curriculum appears on the following page. In selecting biology electives, all majors are required to take at least one course in each of the following 5 course groups (special exemption may be made by permission of the Chairperson):

Cellular (C) - Biol. 250, 344, 346, 349, 350, 352, 353, 450
Molecular (M) - Biol. 250, 344, 350, 361, 362, 364, 363;
Chem. 350, 351, 360, 450, 451
Organismal (O) - Biol. 195, 241, 242, 245, 250, 341, 343, 344, 345, 346, 349, 370, 372, 473
Genetics (G) - Biol. 260, 363, 375
Population (P) - Biol. 195, 345, 370, 371, 372, 375, 473

The premedical advisor's elective recommendations for preprofessional students are listed on page 42.

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	Biol. 141-142	General Biology I-II	4½	4½
COGNATE	Chem. 112-113	General & Analytical Chem	4½	4½
GE AREA III	Communications	Electives*	3	3
GE AREA IV	Humanities	Elective*		3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	19
		SOPHOMORE		
MAJOR	Biology	Biology Electives	4	4
COGNATE	Chem. 232-233	Organic Chemistry I-II	4½	4½
COGNATE	Math 103-114 or Math 114-221	Pre-Calculus Math-Analysis I or Analysis I-II	4	4
GE AREA III	Communications	Elective	3	
GE AREA IV	Humanities	Electives*	3	6
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			19½	19½
		JUNIOR		
MAJOR	Biology	Biology Electives	6	6
COGNATE	Physics 120-121	General Physics	4	4
GE AREA II	Social/Behavior	Elective		3
GE AREA V	Phil. 210-Elective	Ethics-Elective	3	3
GE AREA V	T/RS 122	Theology II	3	
GE FREE	Electives	Electives	3	3
			19	19
		SENIOR		
MAJOR	Biology	Biology Electives	6	7
GE AREA II	Social/Behavior	Electives	6	3
GE AREA IV	Humanities*	Electives*	3	3
GE AREA V	Phil.-T/RS	Philosophy and/or Religious Studies		3
			15	16

TOTAL: 143 credits

*General Education recommendations:
6 credits English literature in Area IV, Comm. 100 and English 110 for Area III.

MINOR: To gain a minor in biology, a student must complete Biology 141-142 or Biol. 101-102, Biology 141-142 laboratory, and 15 additional credits of courses suitable for the biology major. Biology electives must be selected to fill at least 3 of the 5 established course groups, and must include at least three credits of advanced laboratory work. It is strongly suggested that a potential biology minor seek the advice of the Biology chairperson concerning the selection of electives suitable to his/her personal goals.

BIOL. 100 Dr. Sulzinski
Modern Concepts of Biology 4 credits
(Formerly Biol. 106) An exploration of the impact which modern biological concepts have on our lives. These will include topics such as the function of cells, the molecular architecture of living organisms and viruses, genetic engineering principles and how these affect all facets of life. 3 hours lecture, 2 hours lab; lecture and lab must be taken concurrently. (Course not open to biology majors)

BIOL. 101 & 102 Dr. Sulzinski
General Biological Science 6 credits
(Formerly Biol. 3 & 4; Recommended prerequisite for Biol 102: Biol 101) The nature of living organisms and general biological principles, as they affect man and in relation to his problems, are stressed in general terms. (GE AREA I)

BIOL. 103 Dr. M. Carey
Social Biology 3 credits
(Formerly Biol. 5) A discussion of current advances and controversies in biology and medicine, their social and ethical implications, and public policy problems raised by them. Topic vary with the times, but may include such things as definitions of life and death, organ transplantation, population control, genetic engineering, environmental crises, evolution vs. creationism, and the nature of human nature. (GE Area I).

BIOL. 104 Dr. DelVecchio
Behaviors and Health 3 credits
(Formerly Biol. 10) The interrelationship of biological, physical, and social factors as they impact on one's health. An awareness that health is a matter of personal responsibility will be arrived at by an analysis of change, stress, aging, sexuality, nutrition, weight control, drugs and behavior, disease, environmental factors, and health care. (GE AREA I)

BIOL. 110 & 111 Staff
Structure and Function of the Human Body 8 credits
(Formerly Biol. 13 & 14) A general study of the anatomy and physiology of the human organism emphasizing the body's various coordinated functions from the cellular level to integrated organ systems. 3 hours lecture, 2 hours lab each semester; lecture and lab must be taken concurrently. (Course not open to Biology majors.)

BIOL. 141 & 142 Staff
General Biology 9 credits
(Formerly Biol. 1 & 2) A comprehensive study of the nature of living organisms, both plant and animal, their structure, function, development and relationships, including the problems of development, heredity and evolution. 3 hours lecture, 3 hours lab each semester; lecture and lab must be taken concurrently.

BIOL. 195 Dr. Conway
Tropical Biology (O,P) 3 credits
(Formerly Biol. 165) Study of tropical communities with emphasis on the coral reef. Students will be introduced to a variety of other tropical areas, such as sandy beaches, turtle grass beds, mangrove swamps, tide pools, rocky shores, and rainforests. Approximately 2 weeks of the course will be spent at a biological station in the American tropics. Swimming proficiency required. (Majors and GE Area I) Intersession only.

BIOL. 196 Dr. DelVecchio
African Photo Safari 3 credits
This course introduces students to the natural history of Eastern Equatorial Africa with special emphasis on the delicate ecological balance between plant and animal communities. A varied array of ecological zones will be studied. The immense savannah plains, tropical mountain forests, the northern frontier and the Great Rift Valley will be visited for the first hand study of the tremendous diversity of fauna and flora. (Majors and GE Area I)

BIOL. 201 Staff
Anatomy & Physiology 3 credits
(Formerly Biol. 107) This course is an introduction to the biochemical, cellular, tissue and organismal organization of selected body functions; structure in relation to function is emphasized. (Course not open to biology majors)

BIOL. 202 Dr. McDermott
The ABC's of Genetics 3 credits
(Formerly Biol. 24) The basics of heredity for the non-science major, with emphasis on the human. Provides the biological background necessary for the non-scientist to understand his/her own hereditary background and to have informed opinions about societal issues related to genetics. Includes Mendelian genetics, genetic diseases, population genetics, evolution, molecular genetics, genetic engineering, etc. (GE AREA I)

BIOL. 210 Dr. McDermott
Introductory Medical Microbiology 3 credits
(Formerly Biol. 125; Pre- or co-requisites: Biology 110-111; Chemistry 110-111) Fundamentals of Microbiology, including structure, function, identification, pathogenesis, epidemiology and control of microorganisms with special emphasis on human pathogens. 2 hours lecture, 2 hours lab; lecture and lab must be taken concurrently. Fall only. Course not open to biology majors.

BIOL. 241 & 242 Fr. MacEntee
Comparative Vertebrate Anatomy (O) 8 credits
(Formerly Biol. 21 & 22; Prerequisite: Biology 141-142) Structure and phylogeny of vertebrate organ-systems, emphasizing mammalian structure in relation to its function. Amphioxus, shark, and necturus are subjected to detailed laboratory study in first semester and the cat in the second semester. 2 hours lecture, 4 hours lab each semester; lecture and lab must be taken concurrently.

BIOL. 245 Staff
General Physiology (O) 4½ credits
(Formerly Biol. 120; Prerequisite: Biology 141-142, Chem. 112-113) Physiological processes underlying the functioning of the animal organism. Study of irritability, excitation, conduction, contractility, cellular physiology, and functions of mammalian organ-systems. 3 hours lecture, 3 hours lab; lecture and lab must be taken concurrently.

BIOL. 250 Fr. Beining
Microbiology (C,O,M) 4½ credits
(Formerly Biol. 121; Prerequisite: Biology 141-142, Chem. 112-113) Structure, function, growth, reproduction, heredity and relationships of bacteria, yeasts, molds, virus, including a brief survey of pathogens, and life cycles of parasitic microzoa, and also an introduction of disease and immunology. 3 hours lecture, 3 hours lab; lecture and lab must be taken concurrently. For all students except nursing.

BIOL. 260 Dr. McDermott
Genetics (G) 4 credits
(Formerly Biol. 23; Prerequisite: Biology 141-142 or 101-102) Study of Mendelian, cyto-, population and evolutionary, and basic molecular genetics, with major emphasis on eucaryotes. 3 hours lecture, 2 hours lab; lecture and lab must be taken concurrently.

BIOL. 341 Dr. Evans
Embryology (O) 4 credits
(Formerly Biol. 105; Prerequisite: Biology 241) Comparative study of reproduction, gametogenesis, fertilization, cleavage, morphogenesis, development of organ systems in frog, chick and pig. 2 hours lecture, 4 hours lab; lecture and lab must be taken concurrently.

BIOL. 343 Staff
Parasitology (O) 4 credits
(Formerly Biol. 123; Prerequisite: Biology 141-142) Study of various types of human, animal and plant parasites including host-parasite resistance, tolerance, and immunity. Origin and evolution of parasites also discussed. 2 hours lecture, 2 hours lab. Intersession only.

BIOL. 344 Fr. Beining
Principles of Immunology (C,O,M) 4½ credits
(Formerly Biol. 122; Strongly recommended prerequisite: Biology 250) The basic molecular, cellular and organismal aspects of the immune response, emphasizing chemical and functional bases of antigens and immunoglobulins, cellular and humoral response, tolerance, immune deficiency, hypersensitivity, autoimmunity, blood groups, transplantation. Spring only. 3 hours lecture, 3 hours lab; where possible, lecture and lab should be taken concurrently.

BIOL. 345 Dr. Anderson
Comparative Animal Physiology (P,O) 3 credits
(Formerly Biol. 124; Prerequisite: Biology 245) Lectures emphasize the physiological principles involved in adaptations of animals to their environment. Emphasis is placed on the similarities and differences by which related forms have solved these problems. Including such mechanisms of osmotic control, temperature regulation, nerve and muscle physiology, sensory perception, etc. 3 hours lecture. Spring—odd years.

BIOL. 346 Dr. J. Carey
Endocrinology and Reproduction (C,O) 3 credits
(Formerly Biol. 128; Prerequisite: Biol. 245) An examination of the mammalian endocrine system with an emphasis on molecular mechanisms of hormone action, feedback control of hormone production, and integration with other physiological systems. There is a strong emphasis on reproductive endocrinology. No lab. 3 hours lecture. Spring only.

BIOL. 349 Dr. Hardisky
Plant Physiology (C,O) 4½ credits
(Formerly Biol. 132; Prerequisite: Biol. 141 or 101 or permission of instructor) An introduction to the functional anatomy and physiology of plants. Areas of study will include plant structure, photosynthesis, respiration, mineral nutrition, water relations, productivity, growth and differentiation, transport, stress physiology, and energy flow. 3 hours lecture, 3 hours lab. Spring only.

BIOL. 350 Dr. DelVecchio
Cellular Biology (C,M) 4½ credits
(Formerly Biol. 101; Prerequisite: Biology 141-142) Functional dynamics of cellular organelles are explained in terms of the experimental evidence which helped elucidate cellular function. Bio-energetics, molecular evolution, and cytogenetics are also utilized. 3 hours lecture, 3 hours lab; lecture and lab must be taken concurrently. Fall only.

BIOL. 352 Dr. Evans
Histology (C) 4 credits
(Formerly Biol. 103; Prerequisite: Biology 241) The microscopic structure and the functioning relationships of vertebrate tissues and organs with most attention devoted to the mammal. 2 hours lecture, 4 hours lab; lecture and lab must be taken concurrently.

BIOL. 353 Dr. Kwiecinski
Histotechniques (C) 5 credits
(Prerequisites: Biol. 141-142) An introduction to basic and standard histological procedures (including some specialized techniques) designed to meet the diverse needs of histotechnologists, biology majors, premedical students, and research scientists. Lectures focus on basic theory/methodology applicable to both normal and pathological conditions in medicine, zoology and botany. Laboratories focus on demonstration/practice of techniques and provide practical experience in experimental design, implementation of histological procedures, and interpretation of results. 2 hours lecture, 6 hours lab; lecture and lab must be taken concurrently.

BIOL. 361 Dr. Dwyer
Molecular Biology I (M) 4½ credits
(Formerly Biol. 102; Prerequisite: Biology 141-142, Chem. 112-113, 232-233) The structure and function of procaryotic cells from a molecular viewpoint. Study of biomacromolecule structure and function. Study of the processes of bacterial DNA replication, transcription into RNA, translation into proteins and how these processes are regulated. 3 hours lecture, 3 hours lab; lecture and lab must be taken concurrently. Fall only.

BIOL. 362 Dr. Dwyer
Molecular Biology II (M) 3 credits
(Formerly Biol. 104; Prerequisite: Biology 361) The structure and function of eucaryotic cells and organisms from a molecular viewpoint. Study of the processes of eucaryotic gene organization, DNA packaging into chromosomes, DNA replication, transcription into RNA and splicing, translation into proteins and how these processes are regulated. Also, discussion of development, cancer and evolution on the molecular level. 3 hours lecture. Spring only.

BIOL. 363 Dr. DelVecchio
Genetic Engineering (M,G) 4½ credits
(Formerly Biol. 154; Prerequisite: Biology 141-142) A detailed study of the nature and function of the gene with emphasis on the experimental evidence which gave rise to the present concepts of genetic engineering. Strong emphasis is placed on recombinant DNA techniques in the lecture and in the laboratory sections. 3 hours lecture, 3 hours lab; lecture and lab must be taken concurrently. Spring only.

BIOL. 364 Dr. Sulzinski
Virology (M) 3 credits
(Formerly Biol. 126; Prerequisite: Biology 141-142; Chemistry 232-233) Detailed study of the bacterial, plant and animal viruses, including structure, chemistry, replication, genetics, origin and evolution, as well as pathogenesis of and immunity against selected viral pathogens. 3 hours lecture.

BIOL. 370 Dr. M. Carey
Animal Behavior (P,O) 4 credits
(Formerly Biol. 115; Prerequisite: Biol. 141-142 or 101-102) Classification of behavior types, development, functional advantages and evolution of behavior, and social and physiological aspects studied in lower and higher organisms. 3 hours lecture, 2 hours lab. Spring only.

BIOL. 371 Dr. Townsend
Ecology (P) 4 credits
(Formerly Biol. 108; Prerequisite: Biology 141-142 or 101-102) Study of physical, chemical, and biological factors that influence the distribution and abundance of organisms, and that determine the relationships among organisms from the population to the ecosystem level. 3 hours lecture, 2 hours lab; lecture and lab must be taken concurrently. Fall — even years.

BIOL. 372 Dr. Townsend
Vertebrate Biology (O,P) 4½ credits
(Prerequisite: Biol. 141-142 or Biol. 101-102) A survey of vertebrates (fishes, amphibians, reptiles, birds, and mammals), covering aspects of their functional morphology, behavior, ecology, paleontology, and systematics using a comparative approach to vertebrate evolution and diversity. Laboratory will involve two parts: (1) use of preserved material to examine the characteristics important in the identification and systematics of vertebrates, concentrating on identification of local species, and (2) field experiences in the behavior and ecology of local vertebrates. 3 hours lecture, 3 hours lab; lecture and lab must be taken concurrently. Fall only.

BIOL. 375 Dr. M. Carey
Evolution (G, P) 3 credits
(Formerly Biol. 130; Prerequisite: Biology 141-142 or 101-102) A consideration of the theories of evolution and evidences for them in plants and animals. Population genetics and the adaptiveness of various organic traits will be discussed. Fall only.

BIOL. 379 Dr. Townsend
Biostatistics 3 credits
(Formerly Biol. 172; Prerequisite: Math 103) Data analysis and statistical techniques in biology and medicine; including probability and frequency distributions, descriptive statistics, hypothesis testing, and various parametric and nonparametric statistical tests. Course will introduce and involve use of one or more computerized statistical programs. Spring only.

BIOL. 384 Staff
Special Topics in Biology 2-4 credits
(Formerly Biol. 170) Study and analysis of selected topics in biology. The particular topic will vary from year to year based on student/faculty interest and current research advances. May include such topics as sensory reception, membrane biology, population genetics, etc.

BIOL. 393-394 Staff
Undergraduate Research Variable credit
(Formerly Biol. 134; Prerequisite: 12 credits in Biology.) Individual problems for advanced students with sufficient background in biological and physical sciences. Subject time and credit arranged individually.

BIOL. 450 Dr. Anderson
Electron Microscopy (C) 4 credits
(Formerly Biol. 150; Prerequisite: Biology 141-142) Introduction to the mechanics of the electron microscope with emphasis on standard laboratory techniques, including preparation of materials, sectioning, viewing and photographic analysis. 1 hour lecture, 6 hours lab; lecture and lab must be taken concurrently. Spring—even years.

BIOL. 473 Dr. Hardisky
Marine Biology (O,P) 4½ credits
(Formerly Biol. 156; Prerequisite: Biol. 141 or 101 or permission of instructor). A survey of the ecology of marine and estuarine systems. Areas covered include soil chemistry, halophyte physiology, tidal marsh ontogeny, ecosystem function and the consequences of human alteration of the coastal zone. Lab includes a mandatory weekend in Lewes, DE, conducting field experiments. 3 hours lecture, 3 hours lab. Fall only.

NSCI 201 Dr. M. Carey
Science and the Human Environment 3 credits
A brief study of the effects of the technological, scientific and industrial progress on the air, land and water resources of the human environment. Problems in each of the resource areas will be discussed in detail. (GE AREA I)

COURSE GROUPS:
C—Cell Biology M—Molecular Biology
O—Organismal Biology P—Population Biology
G—Genetics

CHEMISTRY

DR. HART, *Chairperson*

The department offers five majors: Chemistry, Biochemistry, Chemistry-Business, Chemistry-Computers, and Medical Technology. The program in Chemistry is approved by the American Chemical Society, which means that graduates may be certified by the American Chemical Society if they meet the requirements. In addition, Chemistry and Biochemistry are offered in conjunction with the Graduate School in five-year B.S.- M.A. degree programs. The strength of the department is indicated by the fact that the University of Scranton has been one of the leading schools in the country in the number of master's degrees awarded in chemistry.

The strength of the department is also demonstrated by a recent study of the office of institutional research at Franklin and Marshall College which ranked the University of Scranton 42nd out of 877 private, four-year, primarily undergraduate colleges as the baccalaureate source of those earning Ph.D.'s in chemistry between 1977 and 1986.

Graduates of the department in recent years have been admitted to doctoral programs to a number of major universities including Harvard, Cornell, Johns Hopkins and Maryland. In addition, a number of students have attended medical and dental schools and some have gone on to law school.

In both the Chemistry and Biochemistry programs, the departmental General Education Area recommendations are six credits of modern language from AREA III, Area IV, or FREE AREA.

MINOR. The minor in Chemistry will include the following requirements: Organic chemistry (6 credits), Physical chemistry (6 credits), Laboratory (3 credits).

CHEMISTRY

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	Chem. 112-113	General Analytical Chemistry I-II	4½	4½
COGNATE	Math. 103-114 or 114-221	Pre Calculus-Analysis I or Analysis I-II	4	4
GE AREA II	Social/Behavior	Elective		3
GE AREA III	Communications	Electives*	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			18½	18½
		SOPHOMORE		
MAJOR	Chem. 232-233	Organic Chemistry I-II	4½	4½
MAJOR	Chem. 240	Inorganic Chemistry		3
COGNATE	Math 221-222 or 222-341	Analysis II-III or Analysis III and Diff. Equations	4	4
COGNATE	Physics 140-141	Elements of Physics	4	4
GE AREA V	T/RS 121	Theology I	3	
GE AREA III	CMPS. 134	Computer Science I	3	
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			19½	16½
		JUNIOR		
MAJOR	Chem. 330-370	Organic Chem. III-Instrum. Anal.	5	5
MAJOR	Chem. 362-363	Physical Chemistry I-II	4½	4½
MAJOR	Chem. 390-391	Chemical Literature-Seminar	1	1
GE AREA II	Social/Behavior	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA IV	Phil. 210	Ethics	3	
GE FREE	Elective	Elective		3
			19½	19½
		SENIOR		
MAJOR	Chem. 440-Chem. 440L	Adv. Inorganic Chem.-Inorg. Lab	3	1½
MAJOR	Chem. 493-494	Undergraduate Research	1½	1½
MAJOR	Chem. Elective	Chemistry Elective		3
GE AREA II	Social/Behavior	Elective		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS 122-Phil.-T/RS	Theol. II-Phil./Theol. Elec.	6	3
GE FREE	Elective	Elective	3	
			16½	15

TOTAL: 143½ credits

*Department recommends Comm. 100 and Engl. 110

N.B. For A.C.S. certification, Chemistry majors must complete Analysis III, Math 341, and two upper division chemistry electives.

BIOCHEMISTRY

The Bachelor of Science in Biochemistry Program parallels the B.S. in Medical Technology for the first two years so that opportunity is afforded the student to change from one program to the other.

MINOR. The minor in Biochemistry will include the following requirements: Organic chemistry (6 credits), Biochemistry (3 credits), Biophysical Chemistry (100 credits), Laboratory (3 credits).

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Chem. 112-113	General Analytical Chemistry I-II	4½	4½
COGNATE	Math. 103-114 or 114-21	Pre-Calculus Math & Analysis I or Analysis I-II	4	4
COGNATE	Biol. 141-142	General Biology I-II	4½	4½
GE AREA III	Communications*	Electives*	3	3
GE AREA V	T/RS 121	Introduction to Theology		3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			17	20
		SOPHOMORE		
MAJOR	Chem. 232-233	Organic Chemistry I-II	4½	4½
MAJOR	Chem. 240	Inorganic Chemistry		3
COGNATE	Phys. 120-121	General Physics	4	4
GE AREA II	Social/Behavior	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy		3
GE AREA III	Cmps. 134	Computer Science I	3	
GE AREA IV	Humanities	Elective	3	
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			18½	18½
		JUNIOR		
MAJOR	Chem. 330-370	Organic Chem. III-Instrumental Analysis	3½	5
MAJOR	Chem 360-361	Biophysical Chemistry I-II	4½	4½
MAJ/COGNATE	Electives	Electives	3	3
MAJOR	Chem. 390-391	Chemical Literature-Seminar	1	1
GE AREA II	Social/Behavior	Electives	3	
GE AREA IV	Humanities	Electives		3
GE AREA V	Phil. 210	Ethics	3	
GE AREA V	T/RS 122	Theology II		3
			18	19½
		SENIOR		
MAJOR	Chem. 450-451	Biochemistry I-II	4½	3
MAJOR	Chem. 493-494	Undergraduate Research	1½	1½
GE AREA IV	Humanities	Electives	6	6
GE AREA V	Phil-T/RS	Electives	3	3
GE AREA II	Social/Behavior	Elective		3
			15	16½
			TOTAL:	143 credits

*Department recommends Engl. 110, Comm. 100

CHEMISTRY-BUSINESS

The Chemistry-Business major combines theoretical and technical instruction in Chemistry with management training in Business. Graduates of this program will be concerned not only with chemical research and technological development but also with management problems in science-related industries.

Most chemistry majors tend to be research-oriented although almost half of the approximately 100,000 chemists employed in American private industry are engaged in work other than research and development: management, marketing and sales. This combined degree was formulated to prepare chemists to assume these latter responsibilities.

From the point of view of the business student, almost one-third of all business graduates can expect to be employed in a chemistry related field: pharmaceuticals, plastics, petroleum, etc. Most business majors employed in such industries must develop, often on their own, the technical knowledge needed to understand their company's operations and products. A fundamental background in chemistry as provided in this concentration is a distinct advantage to individuals planning such a career.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Chem. 112-113	Gen. Analytical Chem. I-II	4½	4½
COGNATE	Math 103-114	Pre-Calculus Math & Anal. I	4	4
GE AREA II	Econ. 151-152	Principles of Economics I-II	3	3
GE AREA III	Communications*	Elective*	3	3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			15½	15½
		SOPHOMORE		
MAJOR	Chem. 232-233	Organic Chemistry I-II	4½	4½
MAJOR	Acc. 253-254	Financial—Managerial Acctg.	3	3
GE AREA V	Phil. 120	Introduction to Phil.	3	
GE AREA III	CMPS 104	Computing for Business and Social Sciences	3	
GE AREA IV	Humanities	Electives		6
GE AREA V	T/RS 121	Introduction to Theology		3
GE AREA V	Phil. 210	Ethics		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17½	17½
		JUNIOR		
MAJOR	Chem. 320-321	Industrial Chemistry I-II	3	3
MAJOR	Chem. 391	Seminar		1
MAJOR	Mgt. 351	Org. & Mgt.	3	
MAJOR	Mgt. 352	Organizational Behavior		3
MAJOR	Mkt. 351	Managerial Marketing-	3	
MAJOR	Fin. 351	Corporate Finance		3
COGNATE	CMPS 330	Information Systems	3	
COGNATE	Math 204	Special Topics in Statistics		3
GE AREA II	Social Behavior	Elective	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil 211-T/RS 122	Business Ethics-Theology II	3	3
			18	19
		SENIOR		
MAJOR	QMS 351-POM 352	Intro. to Mgt. Science—Prod. and Op. Mgt.	3	3
MAJOR	Mgt. 251	Legal Environment of Business	3	
COGNATE	Phys. 120-121	General Physics	3	3
GE AREA II	Social/Behavior	Electives	3	
GE AREA IV	Humanities	Electives	6	3
GE AREA V	Phil.-T/RS	Elective		3
GE FREE				6
			18	18
			TOTAL: 139 credits	

* Department recommends Comm. 100 and Engl. 110

CHEMISTRY-COMPUTERS

The program in Chemistry-Computers is designed to provide a vehicle for preparing students in the area of intensive computer use in the field of chemistry. The use of computers has long been important in chemistry, but in recent years areas such as molecular modeling and design have become increasingly important. Drug companies use these techniques for the design of drugs for particular medical problems. In addition, most of the modern analytical instruments are highly enhanced by on-line computer processing of data. This program is designed to enable students to enter industry or graduate programs in areas such as computational chemistry, chemical information retrieval, or molecular design.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Chem. 112-113	Gen. & Anal. Chem.	4½	4½
MAJOR	CMPS 134-144	Computer Science I-II	3	4
COGNATE	Math. 142-114	Discrete Structures-Analysis I	4	4
GE AREA III	Communications*	Electives*	3	3
GE AREA II	Social/Behavior	Elective		3
GE AREA V	Phil. 120	Intro. to Philosophy	3	
PHYS. EDUC.	Ph.Ed.	Basic Phys. Ed.	1	1
			18½	19½
		SOPHOMORE		
MAJOR	Chem. 232-233	Org. Chemistry I-II	4½	4½
MAJOR	CMPS 240-250	Data Struct.-Mach. Org.	3	3
COGNATE	Math 221-222	Analysis II-III	4	4
COGNATE	Phys. 140-141	Elements of Physics	4	4
GE AREA III	Communications*	Elective*		3
GE AREA V	T/RS 121	Theology I	3	
PHYS EDUC	Ph.Ed.	Phys. Ed.	1	1
			19½	19½
		JUNIOR		
MAJOR	Chem. 370	Instrumental Analysis		5
MAJOR	Chem. 390-391	Chem. Lit.—Seminar	1	1
MAJOR	Chem. 362-363	Physical Chemistry	3	3
MAJOR	CMPS 352	Operating Systems	3	
COGNATE	Math 341	Differential Equations		4
GE AREA II	Social/Behavior	Electives	3	3
GE AREA IV	Humanities	Electives	6	3
GE AREA V	Phil. 210	Ethics	3	
			19	19
		SENIOR		
MAJOR	CMPS 362	Numerical Analysis	3	
MAJOR	Chem./CMPS Elec.	Chem./CMPS Elec.	3	3
MAJOR	Chem. 493-494	Undergrad. Research	1½	1½
GE AREA II	Social/Behavior	Elective		3
GE AREA IV	Humanities	Electives	3	6
GE AREA V	T/RS 122; Phil- T/RS	Theol. II; Phil.-T/RS Elec.	6	3
			16½	16½
			TOTAL:	148 credits

* Department recommends Comm. 100 and Engl. 110

B.S. IN MEDICAL TECHNOLOGY

The Bachelor of Science in Medical Technology degree program, under the direction of Dr. Michael Cann, is designed to train and qualify students as medical technologists or clinical laboratory scientists serving hospitals, clinical laboratories, industrial or research institutions. The program meets and exceeds the requirements of the Committee on Allied Health Education and Accreditation. The program involves the satisfactory completion of the first three years of a curriculum of study (indicated below) at the University of Scranton and the fourth year of clinical education at a hospital having a School of Medical Technology approved by the CAHEA through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). After completing the program, students take a national certification examination. To date the University has arranged affiliation with hospitals in the cities of Allentown, Bryn Mawr, Abington, Danville, Williamsport, Somerville, Wilkes-Barre, New Brunswick, Philadelphia, Scranton and Paterson. See affiliations at the end of this Bulletin.

The curriculum for the BSMT parallels the B.S. in Biochemistry program so that students have the option to change to the latter after two years, should their career goals change.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Chem. 112-113	General Analytical Chemistry I-II	4½	4½
COGNATE	Biol. 141-142	General Biology I-II	4½	4½
GE AREA II	Social/Behavior	Elective		3
GE AREA III	Engl. 110 - Comm. 100	Composition-Public Speaking	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			16	19
		SOPHOMORE		
MAJOR	Chem. 232-233	Organic Chemistry I-II	4½	4½
COGNATE	Biol. 250-245	Microbiology—General Physiology	4½	4½
COGNATE	Math 103-114	Pre-Calculus Math-Analysis I	4	4
GE AREA IV	Humanities	Elective	3	3
GE AREA V	Phil 210-T/RS 122	Ethics-Theol. II	3	3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			20	20
		JUNIOR		
MAJOR	Chem. 350-370	Intro Biochem I-Instru. Anal.	3	5
COGNATE	Phys. 120-121	General Physics	4	4
COGNATE	Biol. 344	Principles of Immunology	3	
GE AREA II	Social/Behavior	Elective		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 212; Phil.-T/RS	Medical Ethics; Phil.-Theo. Elec.		
COGNATE	CMPS 134	Computer Science I	3	
			19	18
		SENIOR		
		Clinical Education		
MAJOR		Clinical Microbiology		
MAJOR		Clinical Chemistry		
MAJOR		Clinical Hematology/ Coagulation		
MAJOR		Clinical Immunohematology		
MAJOR		Clinical Immunology/Serology		
MAJOR		Clinical Seminar		
			16	16
			TOTAL:	144 credits

N.B. There is a $125 Clinical Year Fee charged for each semester of senior year to cover University administrative cost. The student is not, however, charged University tuition for the credits earned in senior year. Some hospitals may charge their own fees. The department has an outstanding record in having its students accepted into medical technology programs. It should be clear, however, that admission to clinical education is competitive and dependent on the student's academic record and success in the interview. The hospital is responsible for selection. A delay in beginning the clinical education may delay a student's graduation. Credits for senior year courses vary from 28 to 32 depending on hospital. Course titles in that year may also vary.

C/CJ 200 Staff
Forensic Chemistry 3 credits
(Formerly C/CJ 151; No prerequisite) Designed for law enforcement majors as well as science majors, this is a study of the rules of evidence and the position of the expert scientific witness in law, followed by a review of the uses of scientific, and particularly chemical, evidence in various phases of the investigation and trial of criminal actions. (Area I).

CHEM. 100 Staff
Elements of Chemistry 3 credits
(Formerly CHEM 3) An elementary study of the field of chemistry for the non-science major; concepts of structure, states of matter, modern developments, implications of the field for modern society. 3 hours lecture. (GE Area I)

CHEM. 104 Staff
Science and Society 3 credits
(Formerly CHEM 152; No prerequisites) A study of some current problems of a scientific and technological nature from the point of view of the non-science major. Scientific back-ground will be provided to lead to greater understanding and possible solutions. Possible topics: energy, genetic engineering, narcotics, pesticides, etc. 3 hours lecture. (GE Area I).

CHEM. 110-111 Staff
Introductory Chemistry 8 credits
(Formerly CHEM 13-14) A study of the fundamental concepts of general chemistry, organic chemistry, and biochemistry. Laboratory work emphasizes skills and procedures relevant to the living system. 3 hours lecture and 2 hours laboratory each semester.

CHEM. 112-113 Staff
General and Analytical Chemistry 9 credits
(Formerly CHEM 11-12) A study of the laws, theories and principles of general chemistry together with qualitative and quantitative analysis. Laboratory work covers semi-micro techniques for qualitative and quantitative analysis (gravimetric and volumetric analysis). 3 hours lecture and 3 hours laboratory each semester.

CHEM. 232-233 Staff
Organic Chemistry 9 credits
(Formerly CHEM 101-102; Prerequisites Chem. 112-113) An introduction to the chemistry of the principal aliphatic and aromatic compounds of carbon and their derivatives. Laboratory work includes investigation of the chemical properties and synthesis of the compounds studied. 3 hours lecture and 3 hours laboratory each semester.

CHEM. 240 Dr. Marx
Inorganic Chemistry 3 credits
(Formerly CHEM 130) Descriptive chemistry of main group and selected transition elements and their compounds correlated with the periodic table, physical properties, atomic and molecular structure. 3 hours lecture.

CHEM. 320-321 Dr. Dickneider
Industrial Chemistry 6 credits
(Formerly CHEM 171) A review of chemical operations and unit or batch processes common to the industry. Econometric analysis involving supply-demand, productivity, commodity prices and costing is an important area covered. Measures of productivity and patent activity. 3 hours lecture.

CHEM. 330 Drs. Cann, Dickneider
Organic Chemistry III 3.5 - 5 credits
(Formerly CHEM 103; Prerequisites: Chem 212-213) A continuation of Chemistry 212-213, emphasizing the study of the major types of organic mechanisms. Laboratory work involves advanced techniques. 2 hours lecture and 6 hours laboratory (3 hour lab for biochemistry majors).

CHEM. 350 Drs. Dreisbach, Wasilewski
General Biochemistry I
(Formerly CHEM 121; Prerequisites: Chem 213) An introduction to the study of biochemistry. A study of the chemical nature of lipids, carbohydrates, proteins, nucleic acids and enzymes including relationships among vitamins, hormones, and inorganic compounds. 3 hours lecture.

CHEM. 351 Drs. Dreisbach, Wasilewski
General Biochemistry II 3 credits
(Formerly CHEM 122; Prerequisite: Chem 350) An introduction to the study of the metabolism of carbohydrates, lipids, amino acids and proteins, including energy transformations and the role of enzyme systems in the above processes. 3 hours lecture.

CHEM. 352 Staff
Chemical Toxicology 3 credits
(Formerly CHEM 153; Prerequisites: Chem. 102) The nature, mode of action and methods of counteracting substances which have an adverse effect on biological systems, especially human. Medical, industrial, and environmental forensic aspects will be discussed. 3 hours lecture.

CHEM. 360 Drs. Baumann, Hart
Biophysical Chemistry I 4.5 credits
(Formerly CHEM 113; Prerequisite: Chemistry 212-213) An introduction to the application of physical-chemical principles to biological problems. This involves aqueous solutions, colloidal chemistry, thermodynamics, electro-chemistry, chemical kinetics and nuclear chemistry. Laboratory work involves experimental applications of the lecture material. 3 hours lecture and 3 hours laboratory.

CHEM. 361 Drs. Baumann, Hart
Biophysical Chemistry II 4.5 credits
(Formerly CHEM 14; Prerequisite: Chem 360) A study of the bioenergetics enzyme kinetics and cryobiochemistry as related to cellular phenomena. Laboratory work includes enzyme kinetics, energetics and special projects. 3 hour lecture and 3 hours laboratory.

CHEM. 362-363 Drs. Baumann, Hart
Physical Chemistry I - II 9 credits
(Formerly CHEM 123-124; Prerequisites: Chem 113, Math 22) A study of the physical chemical properties of matter and the dynamics of chemical reactions. Laboratory experiments illustrate the principles studied. 3 hours lecture and 3 hours laboratory each semester.

CHEM. 370 Drs. Vinson, Sherman
Instrumental Analysis 5 credits
(Formerly CHEM 125; Prerequisite: Chem 360 or 362) Instrumental methods of analysis consisting of theory and application of such instrumental techniques as spectroscopy, polarography, and instrumental titrimetry. Laboratory stresses instrumental analysis and techniques. 2 hours lecture and 6 hours laboratory.

CHEM. 390 Dr. Cann
Chemical Literature and Writing 1 credit
(Formerly CHEM 127) A study of the published source material of chemical science and industry. The course includes practical instruction in library technique and in the written reporting of results. 1 hour lecture.

CHEM. 391 Staff
Seminar 1 credit.
(Formerly CHEM 128) Current topics in chemistry, biochemistry, and industrial chemistry are prepared and presented by the students.

CHEM. 440 Dr. Marx
Advanced Inorganic Chemistry 4.5 credits
(Formerly CHEM 135; Prerequisites: Chem. 362-363 or 360-361) Theoretical concepts and their application to the reactions and structure of inorganic compounds. Coordination chemistry and related topics, physical methods and reaction mechanisms. (3 hours lecture and 3 hours laboratory.)

CHEM. 450 Drs. Dreisbach, Wasilewski
Biochemistry I 4.5 credits
(Formerly CHEM 121; Pre or corequisites: Chem 213 and 350 or 362) Structure-function relationships with emphasis on the organic and biophysical characteristics of proteins, lipids and carbohydrates are described. Enzyme mechanisms and kinetics and the thermodynamic basis of intermediary metabolism are major themes. 3 hours lecture and 3 hours lab. (Lab required of biochemistry major)

CHEM. 451 Drs. Dreisbach, Wasilewski
Biochemistry II 3 credits
(Formerly CHEM 122; Prerequisite: Chem 450) The discussion of intermediary metabolism is continued from Chem 450 with emphasis on lipid protein and nucleic metabolism. Chemical aspects of molecular biology, including DNA replication, gene regulation and protein biosynthesis are described. 3 hours lecture.

CHEM. 452 Drs. Wasilewski, Dreisbach
Enzymology 3 credits
(Formerly CHEM 177) A course in the chemical nature of enzymes with relation to mechanism of enzyme action and kinetics, purification and identification of enzymes and isoenzymes. Biochemical and physiological aspects of enzymes in living systems. 3 hours lecture.

CHEM. 460 Drs. Baumann, Hart
Physical Chemistry III 3 credits
(Formerly CHEM 129; Prerequisite: Chem. 363) Quantum mechanics and quantum chemistry, including classical problems, perturbational theory, variational theory and specific applications of molecular orbital theory to organic molecules and spectroscopic applications.

CHEM. 464 Dr. Hart
Polymer Chemistry 3 credits
Introduction to the physico-chemical aspects of polymers; emphasis on structure, properties and application; thermodynamics of polymer solutions; statistical mechanical consideration of polymers, theories of rubber elasticity.

CHEM. 493-494 Staff
Undergraduate Research 3 credits
(Formerly CHEM 131-132; Prerequisites: Chem. 233, 360 or 362,390) Individual study and research in connection with a specific chemistry or biochemistry problem. Results must be written as thesis and defended before the department. 1.5 credits each semester.

NSCI 103 Dr. Vinson
The Ascent of Man 3 credits
(GE Area I) Science and Technology from the ancient Greeks to the present will be discussed from the personal viewpoint of the scientists and inventors. Lectures will be supplemented with films from the Ascent of Man Series on PBS. 3 hours lecture.

COMMUNICATION

DR. SADOWSKI, *Chairperson*

The Department of Communication embraces the fields of broadcasting (radio and television), cable, film, journalism, advertising, public relations, and speech. Although the media are interrelated, students may concentrate in one of these fields. Some students, however, will seek a mixture or subspecialty which combines study in several Communication areas. The Department will adapt each student's curriculum to his or her goals, and for this reason individual student advising by the Communication faculty is a high priority.

Students who major in Communication become knowledgeable about the subject matter from both humanistic and scientific perspectives. They also have several opportunities to acquire on-the-job experiences through departmental internships, as well as individualized study available through faculty-directed projects and theses. A Communication degree program prepares students for professional careers and advanced studies. In addition, courses are designed to serve students in other departments of the University by developing their oral and written communication skills.

A student wishing to earn a B.A. degree in Communication must satisfactorily complete a minimum of 36 semester hours from the Department of Communication course offerings. Included among these 36 hours are six core courses which are required for all Communication majors.

DEGREE OFFERINGS AND REQUIREMENTS

A minimum of 36 hours in Communication subjects, including the following six required core courses:

Comm	110	Human Communication
Comm	120	Mass Communication
Comm	210	Logical and Rhetorical Analysis
Comm	220	Responsibility in Communication
Comm	310	Mass Communication Law
Comm	410	Communication Theory and Research

Electives may be selected from the following courses without necessarily concentrating in one area:

Advertising/Public Relations

Comm	225	Advertising
Comm	226	Writing for Public Relations
Comm	227	Public Relations
Comm	312	Organizational Communication
Comm	325	Advertising Copywriting
Comm	327	Public Relations Cases
Comm	380	Advertising Practicum

Broadcasting/Film

Comm	232	Film History
Comm	331	Mass Media Management
Comm	332	Documentary Film
Comm	334	Broadcast Programming
Comm	425	Cable Television
Comm	426	International Broadcasting
Comm	427	International Film
Comm	432	Film Theory and Criticism
Comm	433	Television Criticism

Communication Studies

Comm	211	Argumentation and Debate
Comm	214	Small Group Communication
Comm	231	Communication and Socialization
Comm	311	Political Communication
Comm	313	Nonverbal Communication
Comm	326	Political Advertising
Comm	411	Persuasion

Journalism

Comm	223	Radio Journalism
Comm	224	Newswriting
Comm	323	Television Journalism
Comm	324	Advanced Newswriting
Comm	328	News Editing
Comm	329	Graphics

Radio/TV Production

Comm	221	Radio Production
Comm	222	Television Production
Comm	321	Advanced Radio Production
Comm	322	Advanced Television Production
Comm	422	Educational Television
Comm	480	Television Practicum

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Comm 110	Human Communication	3	
MAJOR	Comm 120	Mass Communication		3
COGNATE	Engl. 110	Composition	3	
GE AREA IV	Humanities	Electives	3	6
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121-122	Theology I-II	3	3
GE AREA III	Comm 100*	Public Speaking*		3
PHYS EDUC	Ph.Ed.	Phys. Educ.	1	1
			16	16
		SOPHOMORE		
MAJOR	Comm. 210	Logical & Rhetorical Analysis	3	
MAJOR	Comm. 220	Responsibility in Communication		3
MAJOR	Comm. Electives	Comm. Electives	3	3
GE AREA I	Nat.Sci./Quant.	Elective		3
GE AREA II	Soc./Behav.	Electives	3	3
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil. 210	Ethics	3	
GE AREA V	Phil.-T/RS	Elective		3
PHYS EDUC	Ph.Ed.	Phys. Educ.	1	1
			16	16
		JUNIOR		
MAJOR	Comm. 310	Mass Communication Law	3	
MAJOR	Comm. Electives	Comm. Electives	3	3
COGNATE	Electives	Electives	6	3
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil.-T/RS	Elective		3
			18	15
		SENIOR		
MAJOR	Comm. 410	Comm. Theory & Research	3	
MAJOR	Comm. Electives	Comm. Electives	3	3
COGNATE	Electives	Electives	6	6
GE FREE	Electives	Electives	3	6
			15	15
			TOTAL:	127 credits

* If student is exempted, no credits are required in Area III; 3 credits are added to Free Area.

MINOR. A student wishing to minor in Communication must satisfactorily complete 18 hours to be selected with the approval of the Department Chair. Nine of these hours must come from the following three options:

1) either Comm 110 Human Communication
   or Comm 120 Mass Communication

2) either Comm 210 Logical and Rhetorical Analysis
   or Comm 220 Responsibility in Communication

3) either Comm 310 Mass Communication Law
   or Comm 410 Communication Theory and Research.

COMM. 100 Staff
Public Speaking 3 credits
(Formerly COMM 2) This is a performance class which emphasizes the theory, composition, delivery, and criticism of speeches. Sucessful completion of COMM 100 (with a grade of C or better) fulfills the speech skills requirement of the University. (GE Area III)

COMM. 110 Staff
Human Communication 3 credits
An investigation and analysis of the process and nature of human communication and its intrapersonal and interpersonal attributes.

COMM. 120 Staff
Mass Communication 3 credits
Historical survey of the nature, scope, and function of the print and electronic media in the United States. Economics, programming, and public control are some of the topics covered.

COMM. 210 Staff
Logical and Rhetorical Analysis 3 credits
(Formerly COMM 103) A study of the principles of logic and persuasion, analysis of fallacies, and critical examination of the principles of structure in written and oral communication. Practice in briefs and abstracts with an emphasis on precision and clarity. (GE Area III)

COMM. 211 Staff
Argumentation and Debate 3 credits
(Formerly COMM 112) This course concentrates on the techniques of argumentation, persuasion, debate, and forensics. Focuses heavily on research, case construction, and formal analysis. (GE Area III)

COMM. 214 Staff
Small Group Communication 3 credits
An examination of research, techniques, and principles of small group communication. Topics include problem-solving, decision-making, conflict resolution, leadership theories, interaction strategies, and participant roles. (GE Area III)

COMM. 216 Staff
Psychology of Communication 3 credits
A study of what is specifically human in human communication by exploring those communication systems which are essential ingredients of human nature. An individualized exploration of these components describe elements which help or hinder one's progress in the realization of the human potential.

COMM. 220 Staff
Responsibility in Communication 3 credits
(Formerly COMM 130; prerequisites: COMM. 110 & COMM. 120) This course will consider the responsibilities of those in control of the mass media and the publics which are served. Different faculty may approach this course from various ethical-humanistic perspectives.

COMM. 221 Staff
Radio Production 3 credits
(Formerly COMM 131) An examination of the dynamic industry roles of the radio producer/director. Areas to be studied include production theory and techniques which apply to station and program promotions, advertising, news, and music formats. (GE Area III)

COMM. 222 Staff
Television Production 3 credits
(formerly COMM 141) Designed to provide both theoretical background and practical application of television production in and outside the studio. Various format types, production techniques, and artistic styles are studied. Opportunity for producing and directing television programs. (GE Area III)

COMM. 223 Staff
Radio Journalism 3 credits
(Prerequisite: COMM. 221 or COMM. 224 or COMM. 328) With a focus on gathering and preparing news for broadcast (concentrating especially on interviewing techniques), this class will investigate various news formats and styles. At the mid-semester point, the class will begin operating as a news team at WYRE. (GE Area III)

COMM. 224 Staff
Newswriting 3 credits
(Formerly COMM 152) Evaluating news, reporting and writing stories. Newsroom organization. Style and usage. Interviewing, feature writing. Students work at Macintosh computer terminals. Typing ability needed. (GE Area III)

COMM. 225 Staff
Advertising 3 credits
(formerly COMM 161) This course explores advertising as an institution in society, utilizing research, media planning, and creative strategies. Students will participate in the formulation of an advertising campaign plan for local businesses.

COMM. 226 Staff
Writing for Public Relations 3 credits
The study of the kinds of written communication used in the practice of public relations. This is a writing-intensive course that examines both print and broadcast media. Students work at terminals for written assignments.

COMM. 227 Staff
Public Relations 3 credits
This course introduces the principles, practices, and theory of public relations as communication management. Strategies that create public images for organizations and sustain cooperative relationships with their various publics will be examined.

COMM. 231 Staff
Communication and Socialization 3 credits
(Formerly COMM 150) Study of the interactive impact of mass media upon society and society upon mass media. Topics include children and television, media violence, political campaigns, diffusion of innovations, and social learning.

COMM. 232 Staff
Film History 3 credits
This course will trace the evolution of filmmaking from its earliest experimental stages to the modern feature film of today. The course will concentrate on the American film industry, its audience impact as a mass medium, and the genres of films which have evolved over the years. Selected screenings will reveal the transitions and refinements which characterize the medium of film. GE Area III or IV)

COMM. 380 Staff
Advanced Public Speaking 3 credits
(Prerequisite: COMM. 100) Advanced principles and practices of speech construction, audience analysis, criticism, and delivery styles. (GE Area III)

COMM. 310 Staff
Mass Communication Law 3 credits
(formerly COMM 180; Prerequisites: COMM. 210 & COMM. 220.) Analysis and examination of statutory laws, congressional legislation, and federal rules and regulations governing the mass media in the United States. Focus on the First Amendment, libel and slander, privacy, copyright, free press/fair trial, obscenity, advertising, antitrust and monopoly, taxation, and licensing.

COMM. 311 Staff
Political Communication 3 credits
The study of rhetorical strategies used by the modern politician. Examination of American political rhetoric as well as rhetorical styles operative in foreign policy activities.

COMM. 312 Staff
Organizational Communication 3 credits
(Formerly COMM 170) The study of communication behaviors, patterns, and strategies in organizations. Topics include power and politics, organizational cultures, human resources, conflict management, and negotiation. Historical and contemporary theories of organizing are examined and critiqued from a communication perspective.

COMM. 313 Staff
Nonverbal Communication 3 credits
A study of the nonverbal aspects of human interaction. Topics include impression management, social influence, form and function in design, proxemics, kinesics, and the symbolic environment. (GE Area III)

COMM. 314 Staff
Legal Communication 3 credits
An examination of specific skills needed to promote effective and meaningful communication by the legal professional and the interface with clients, juries, judges, and the non-legal public.

COMM. 315 Staff
Medical Communication 3 credits
An examination of specific skills needed to promote effective and meaningful communication by the medical professional and the interface with patients, doctors, hospital administrators, and the non-medical public.

COMM. 321 Staff
Advanced Radio Production 3 credits
(Prerequisite: COMM. 221) Building upon the foundation acquired in COMM. 221, students generate specialized projects of their own design. Then, working with the instructor and professionals from the radio industry, students produce and direct complete programs for broadcast.

COMM. 322 Staff
Advanced Television Production 3 credits
(Formerly COMM 143; Prerequisite: COMM. 222) Building upon the foundation acquired in COMM. 222, students pursue specialized projects in producing and directing programs for broadcast or cable distribution. (GE Area III)

COMM. 323 Staff
Television Journalism 3 credits
(formerly COMM 157; prerequisite: COMM. 224 or COMM. 328 [formerly 153]). Broadcast journalism skills are refined through classroom and outside assignments. Production techniques, including tape editing, are explored. Television news formats are produced. (GE Area III)

COMM. 324 Staff
Advanced Newswriting 3 credits
(Prerequisite: COMM. 224) Intensive training and practice in techniques of reporting and writing news stories and in covering public affairs. Familiarity with journalistic basics, style, and computer terminal operations required.

COMM. 325 Staff
Advertising Copywriting 3 credits
An advanced seminar in which students develop two separate creative campaign strategies for hypothetical clients of their own choosing. For these large-budget accounts, students must create copy for newspapers, magazines, broadcast, and direct mail, all with a consistent campaign theme.

COMM. 326 Staff
Political Advertising 3 credits
Critical examination of rhetorical strategies used in twentieth century political campaigning. Case studies and student projects focus on the special uses of broadcast and print media in political advertising

COMM. 327 Staff
Public Relations Cases 3 credits
(Prerequisite: COMM. 227) This course places the student in a managerial, decision-making role in planning and executing public relations programs. A case-method approach is the predominant mode of instruction. Final project requires the development of a public communication campaign.

COMM. 328 Staff
News Editing 3 credits
(Formerly COMM 153; prerequisite: COMM. 224) Preparing copy for publication. Correcting, improving and trimming stories. Headline writing, layout, graphics. Wire services, printing process. Students work at Macintosh computer terminals.

COMM. 329 Staff
Graphics 3 credits
(Prerequisite: COMM. 224) Visual aspects of print media. Typography, printing processes, handling photos and other art layout and design, introduction to desktop publishing. Familiarity with journalism basics, style, and computer terminal operations required.

COMM. 331 Staff
Mass Media Management 3 credits
(Prerequisite: COMM. 120 or COMM. 220) The multifaceted roles of managers in the various communication industries are examined. Special attention is given to technical, conceptual and humanistic concerns. Specific areas of study include: Management of self and personal relations, unions and contracts, community relations, audience analysis and measurement.

COMM. 332 Staff
Documentary Film 3 credits
This course traces the growth, development and influence of American and foreign nonfiction films, particularly their various functions as propaganda, public service and promotion, education, entertainment, and art.

COMM. 334 Staff
Broadcast Programming 3 credits
Study of programming strategies, practices, and operations of commercial radio and television stations. Topics include audience research, program acquisitions, scheduling, formats, syndication, promotion, and network-affiliate relationships. (GE Area III)

COMM. 380 Staff
Advertising Practicum 3 credits
(Formerly COMM 162; prerequisite: COMM. 225) Building upon the foundation acquired in COMM. 225, this course provides students with real-life experiences associated with operating a full-service advertising agency. The agency provides clients with a complete array of services ranging from campaign creation to implementation and evaluation.

COMM. 410 Staff
Communication Theory and Research 3 credits
(Formerly COMM 190; prerequisites: COMM. 210 & COMM. 220) Critical study and analysis of various theoretical models of communication, behavioral science theories, and communication research paradigms. Topics include information theory, scientific method, balance and congruity theories, cognitive dissonance, perception, attitude change, semantic differential, group dynamics, persuasion, and statistical methods.

COMM. 411 Staff
Persuasion and Propaganda 3 credits
An in-depth examination of the theoretical foundations and practical applications of those factors which influence the persuasibility of target audiences. Topics include attitudes, beliefs, values, behaviors, appeals, and reference groups.

COMM. 416 Staff
Philosophy of Communication 3 credits
A general study of the forces and dynamics which articulate the phenomenon of human communication by an examination of the human capacity to comprehend and realize fulfillment or wholeness through communication.

COMM. 422 Staff
Educational Television 3 credits
(Formerly COMM 142) Instructional uses of the television medium by public television stations, schools, closed-circuit and cable systems. Types of educational programs are evaluated. Students work on preparing projects which may reflect their own pedagogical interests. (GE Area III)

COMM. 425 Staff
Cable Television 3 credits
(Formerly COMM 175) A study of cable television and its development and current place in the telecommunications industry. Topics include programming strategies, formats, multiple system operators, independents, syndication, sales, satellite services, pay-per-view, audience ratings, management, and the franchising process. Students develop their own research proposals for establishing new cable channels, networks, and services.

COMM. 426 Staff
International Broadcasting 3 credits
Comparative analysis of national and international media systems throughout the world. Emphasis on their origin, development, and operation.

COMM. 427 Staff
International Film 3 credits
An investigation of the major contributions and movements of various nations in the development and evolution of film as a multi-national and global industry.

COMM. 432 Staff
Film Theory and Criticism 3 credits
Critical examination of the major theoretical and analytical explanations of film's effectiveness as an artistic form of communication. The work of classical, contemporary and experimental film scholars will be studied, and selected films depicting their observations will be screened. Film analysis and criticism projects will be designed by students. (GE Area III or IV)

COMM. 433 Staff
Television Criticism 3 credits
(Formerly COMM 168) Analysis of radio and television programs and promotional strategies, including formats, scripts, talent, commercials, public service announcements, positioning, ratings, and network-affiliate relationships.

COMM. 480 Staff
Television Practicum 3 credits
Communication seniors undertake significant areas of study resulting in a broadcast-quality videotape or audiotape suitable for airing by commercial or non-commercial television stations, radio stations, or cable systems.

COMM. 481 Staff
Internship 3 credits
(Prerequisites: Junior or Senior standing, plus appropriate course work, and faculty approval.) Highly recommended for every major, although not required, this on-the-job experience is guided by practitioners in the communication field and supervised individually by a faculty member in consultation with the student's advisor and the department chair. An additional 3 credits can be earned—for a maximum of 6 credits— by petition to the Communication Department. (Internship credits cannot be used to fulfill requirements in the COMM. major, minor, or cognate; they can be used in the Free Area.) See Internship Director.

COMM. 482 Staff
Directed Independent Study 3 credits
(Formerly COMM 195; prerequisite: Senior Standing) In consultation with the student's advisor and department chair, the communication senior undertakes a significant area of study resulting in a major research paper. Students select a communication professor whom they wish to direct the study. Usually taken to augment an area of the student's interest not substantially covered in available departmental courses.

COMM. 484 Staff
Special Topics 3 credits
(Formerly COMM 191) In-depth departmental seminars on selected communication topics meeting the needs and interests of students. Topics vary from semester to semester.

COMM. 499 Staff
Senior Thesis 3 credits
(Formerly COMM. 199; Prerequisites: COMM. 310 & COMM. 410) An optional research-based written project in which the serious communication senior, in consultation with the student's advisor and department chair, selects an issue or problem for scholarly study, undertakes significant and meaningful research, and produces a major paper of publishable quality. Students select a communication professor whom they wish to direct their thesis. Strongly recommended for students who plan to attend graduate school.

Fr. Bert Akers, S.J., Associate Professor of Communication; and Kathleen Blake, 1990 graduate in Communication, edit a promotional video in the Jefferson Hall Television Studio.

COMPUTING SCIENCES

DR. BEIDLER, *Chairperson*

The University of Scranton's bachelor of science program in computer science dates from 1970—one of the oldest in the Commonwealth of Pennsylvania. The Computer Science Major provides an integrated introduction to Software Engineering along with the Mathematical skills needed in Computer Science. The program culminates in the senior year with the Computer Projects course. Research and internship opportunities are available.

COMPUTER SCIENCE

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	CMPS 134-144	Computer Sci I-II	3	4
COGNATE	Math 142-114	Discrete Structures-Analysis I	4	4
GE AREA III	Comm 100-Engl 110	Public Speaking-Composition	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120	Intro. To Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17	18
		SOPHOMORE		
MAJOR	CMPS 240-250	Data Structures — Mach Org	3	3
MAJOR	CMPS 260	Theor. Foundations CMPS		3
COGNATE	Math 221	Analysis II	4	
COGNATE	Phys. 140-141	Elements of Physics I-II	4	4
GE AREA III	Engl. 111	Tech & Business Writing	3	
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS 122	Theology II		3
PHYS EDUC	Ph. Ed.	Physical Ed.	1	1
			18	17
		JUNIOR		
MAJOR	CMPS 352-344	Operating Sys-Prog Lang	3	3
MAJOR	CMPS 340	File Processing	4	
MAJOR	CMPS 350	Computer Architecture	3	
MAJOR	CMPS	Electives*		6
COGNATE	Math 312-314	Probability-Statistics	3	3
GE AREA II	Eco. 251-252	Economic Principles I-II	3	3
GE AREA V	Phil. 210	Ethics	3	
GE FREE	Elective	Elective		3
			19	18
		SENIOR		
MAJOR	CMPS 490	Computer Projects	3	
MAJOR	CMPS	Electives*	3	3
COGNATE	Elective	Elective		3
GE AREA IV	Humanities	Electives	3	3
GE AREA II	Soc/Behavior	Psych. 110-Elective	3	3
GE AREA V	Phil.-T/RS	T/RS Elective/Phil. 214	3	3
GE FREE	Elective	Elective		3
			15	18

TOTAL: 140 credits

* The four electives in the major must be chosen from CMPS 341, 354, 360, 362, 364, 370, 372, 384, 393, 440, 480, and 481.

COGNATE — Senior year elective should be a science course at the 300 level or above, or a mathematics course at the 200 level or above.

MINOR. The Minor in Computer Science must include CMPS 134, 144, and 240 and any three of the courses CMPS 250, 260, 344, 350, 352, 354, 360, 364, 370, 372, or 440.

COMPUTER INFORMATION SYSTEMS

This program investigates the analysis, design, development, implementation, evaluation and effective use of computer information systems in organizations. Since business and government are principal users of computers, Computer Information Systems majors will select cognates from the School of Management or from the Public Administration Program. This major is enhanced by the Computer Systems Intern Program in Pennsylvania State Government. Students are encouraged to participate in this or another internship.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	CMPS 134-144	Computer Science I-II	3	4
COGNATE	Math 142-114	Discrete Structures-Analysis I	4	4
GE AREA III	Comm 100 - Engl 110	Public Speaking - Composition	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17	18
		SOPHOMORE		
MAJOR	CMPS 240-250	Data Structures—Mach Org	3	3
COGNATE	Acc. 253-254	Financial Acc./ Managerial Acc.	3	3
COGNATE	Math 204	Statistics		3
GE AREA II	Eco. 251-252 or Pol. Sci. 110-111*	Economic Principles I-II or Pub. Admin.	3	3
GE AREA III	Engl. 111	Tech & Business Writing	3	
GE AREA IV	Humanities	Electives	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	CMPS 330-331	Information System—Analysis	3	3
MAJOR	CMPS 340-341	File Processing-Database	4	3
MAJOR	CMPS 352-Elect	Operating Systems-Elective	3	3
COGNATE	Elective	Elective		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 210-T/RS 122	Ethics-Theology II	3	3
			16	18
		SENIOR		
MAJOR	CMPS 490	Computer Projects	3	
MAJOR	CMPS	Electives		6
COGNATE	Electives	Electives	3	3
GE AREA II	Soc/Behavioral	Electives*	3	3
GE AREA V	Phil-T/RS	Elective/Phil 211 or 214	3	3
GE FREE	Electives	Electives	3	3
			15	18

TOTAL: 134 credits

Elective courses in the Computer Information Systems major must be CMPS courses numbered 200 or higher.

* Pol Sci 110-111 should be taken if a student anticipates applying for the CSIP Internship (CMPS 480). Such students should reserve the senior year Area II electives to be taken in conjunction with the Internship. Otherwise, Psych. 110 is required.

School of Management Cognates—Mgt 351 and QMS 351 are required. Select one from the following: Eco. 364 or 365, Fin 351, Mkt 351, Mgt 352, 361, 471, POM 352 or 361.

Public Administration Cognates—Select three from the following: Pol Sci 210, 211, 324, 325, or 327.

MINOR. The Minor in Computer Information Systems must include CMPS 134, 144, 330, and 340, and any two of CMPS 104, 240, 331, or 341.

CMPS 102
Computer Literacy 3 credits
(Formerly CMPS 1) This course is designed for non-science majors who wish to learn to use computing in several ways that do not involve programming. Students learn the fundamentals of using an editor, text processor, electronic spreadsheet, statistical and graphics software. (GE AREA I; students who earn credit for CMPS 104 may not take CMPS 102.)

CMPS 104
Computing for Business & Social Sciences 3 credits
(Formerly CMPS 21) An introduction to computing, emphasizing problem solving concepts and the use of software packages. Emphasis is on the use of word processing, electronic spreadsheets, statistical packages, graphics and data-base software, as well as developing a concern for societal issues. (GE AREA III; students who earn credit for CMPS 102 may not take CMPS 104.)

CMPS 106
FORTRAN 77 3 credits
(Formerly CMPS 20) An introduction to programming using FORTRAN 77. Applications from mathematics and the natural sciences are emphasized. (GE AREA III)

CMPS 108
COBOL Programming 3 credits
(Formerly CMPS 40; prerequisite: Previous use of a computer) An introduction to ANSI standard COBOL Traditional business applications will be emphasized. Topics include internal data representation, data editing, calculations, one-level tables, search, sort, and reporting. (GE AREA III)

CMPS 114
Introduction to the Programming Process 3 credits
Designed for the student who has not programmed before, this course investigates the process of programming in the language Pascal. included are the software development process, how a computer works, the use of editors and linkers in the programming, and the mathematical fundamentals needed in the computing sciences. Area I.

CMPS 134
Computer Science I 3 credits
(Formerly CMPS 24) An introduction to programming concepts and methodology using the programming language Pascal. The course emphasizes a structured programming approach. Topics included are problem analysis, modularization, top-down design, and the elements of the programming language, Pascal.

CMPS 144
Computer Science II 4 credits
(Formerly CMPS 25; prerequisite: CMPS 134 and MATH 142.) A sequel to CMPS 134, continuing the development of structured programming concepts using the programming language Modula-2. The course emphasizes the use of data structures and modular programming.

CMPS 240
Data Structures 3 credits
(Formerly CMPS 110; prerequisites: CMPS 144) The representation and transformation of information. This course stresses the interrelation between data structure and program structure and the analysis of algorithms for efficiency.

CMPS 250
Machine Organization and Assembly Language Programming 3 credits
(Formerly CMPS 100; prerequisite: CMPS 144) An introduction to machine organization and architecture. Among the topics discussed will be machine organization, assembler programming the representation of data, the assembler, input-output routines and the use of macros.

CMPS 260
Theoretical Foundations of Computer Science 3 credits
(Prerequisite: CMPS 240) An introduction to the theoretical foundations of computing. This course builds on topics from discrete mathematics and data structures. Topics include computability, automata, languages, grammars, expressions, and algorithimic analysis.

CMPS 330
Information Systems Analysis 3 credits
(Formerly CMPS 127; prerequisite: CMPS 106 or CMPS 104 or CMPS 134.) Introduction to concepts and practices of information processing. Computerized system requirements and techniques in providing appropriate decision-making information to management.

CMPS 331
Systems Analysis and Design 3 credits
(Formerly CMPS 138; prerequisite: CMPS 330.) A study of the system development methodology and the role played by the systems analyst in developing user-accepted information system.

CMPS 340
File Processing 4 credits
(Formerly CMPS 140; prerequisite: CMPS 144 required, CMPS 240 recommended.) File processing concepts and applications using COBOL as an implementation language. Topics include: tables; sorting; searching; creation, maintenance, and reporting of sequential, relative, and indexed file structures. Projects require the use of CASE tools for design and documentation.

CMPS 341
Database Systems 3 credits
(Formerly CMPS 142; prerequisite: CMPS 340 required, CMPS 240 recommended.) An introduction to database management systems, DBMS, with an emphasis on relational database design and applications. The primary software used is dBASE III PLUS and ORACLE DBMS.

CMPS 344
Programming Languages 3 credits
(Formerly CMPS 150; prerequisite: CMPS 352.) Practical and theoretical aspects of programming languages, compilers, and interpreters.

CMPS 350
Computer Architecture 3 credits
(Formerly CMPS 145; prerequisite: CMPS 250.) Processor/memory/switch and instruction set processor/register transfer level; digital logic design.

CMPS 352
Operating Systems 3 credits
(Formerly CMPS 101; prerequisite: CMPS 240 and CMPS 250.) The analysis and design of computer systems, including operating system design, memory management, scheduling, and the implementation of multiprogramming.

CMPS 354
Data Communications and Networks 3 credits
(Prerequisite: CMPS 352) A study of data communication and networking concepts, including distributed system architectures, electronic interfaces, data transmission, data link protocols, terminal networks, computer communication, public data networks, and local area networks.

CMPS 360
Analysis of Algorithms 3 credits
(Formerly CMPS 112; prerequisite: CMPS 240) An investigation of algorithms and computibility. Classic algorithms for sorting and graph theory as well as examples from current literature are examined. Computibility, decidability, completeness, do-ability are possible additional topics.

CMPS 362
Numerical Analysis 3 credits
(Formerly CMPS 130; prerequisite: CMPS 134 and MATH 222.) A survey of computer-oriented techniques for integration, differentiation, matrix computation, solution of simultaneous equations, and analysis of errors.

CMPS 364
Theory of Computation 3 credits
(Formerly CMPS 160; prerequisite: CMPS 240.) The development of a theoretical notion of computibility and its relationship to Turing computibility and recursive functions; the study of the relationships between automata, formal languages, and grammars.

CMPS 370
Computer Graphics 3 credits
(Formerly CMPS 133; prerequisite: CMPS 240.) Introduction to equipment and techniques used to generate graphical representations by computer. Description and use of vector-refresh, vector-storage, and raster-scan graphics plotter and CRT pseudographics.

CMPS 372
Artificial Intelligence 3 credits
(Formerly CMPS 125; prerequisite: CMPS 240.) Problem solving using Expert Systems, heuristic programming techniques, tree speed-up techniques, and learning mechanisms.

CMPS 384 Fee TBA.
Special Topics 3 credits each
(Formerly CMPS 180; departmental permission required.) Topics and prerequisites will be announced prior to preregistration.

CMPS 393 Fee TBA.
Computer Research 3 credits
(Formerly CMPS 193; departmental permission required.) A research project carried out by a student under the direction of a faculty member in the department. The results will be prepared in a form suitable for publication. Reader fee.

CMPS 440
Compiler Design 3 credits
(Formerly CMPS 152; prerequisite: CMPS 344.) Study of techniques and problems involved in constructing compilers. Lexical analysis, syntax analysis, semantic analysis, symbol table management, code generation, code optimization.

CMPS 480
CSIP Internship 3 credits
(Formerly CMPS 199; departmental permission required.) A six-month job experience in computing in a Pennsylvania State Government Agency. Applications are accepted during the Fall of the student's sophomore or junior year.

CMPS 481
Computer Internship 3 credits
(Formerly CMPS 195, departmental permission required.) An intensive job experience in computing which carries academic credit. Prior approval is required and an information booklet is available from the department. Reader fee.

CMPS 490
Computer Projects 3 credits
(Formerly CMPS 120, departmental permission required.) In this course students prepare and present individual computer projects to be evaluated by the instructor and their fellow students. Seniors only.

CRIMINAL JUSTICE

PROF. PRYLE, *Chairperson*

The BS Degree program in Criminal Justice has the following objectives: 1. to prepare students for careers in law enforcement at the local, state or federal levels (FBI, Departments of Defense, Treasury, Justice); 2. to prepare students for careers in the field of correction and rehabilitation: parole, prisons, juvenile delinquency, etc.; 3. to provide students with academic preparation for advanced study in law, criminology, public administration and related fields. The Criminal Justice major is administered by the Department of Sociology/Criminal Justice, which also administers the Sociology and Gerontology degree programs. An Advisory Board of Community leaders working in the field of law enforcement and criminal justice has been established to work with University officials and faculty.

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	CJ110-S/CJ 213	Intro. to Criminal Justice-Criminology	3	3
COGNATE	Soc. 110	Principles of Sociology	3	
GE AREA I	Nat. Sci./Quant.*	Elective		3
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	S/CJ 210-S/CJ 212	Law and Society—Criminological Research	3	3
MAJOR	S/CJ 218-220	Amer. Court System-Penology	3	3
COGNATE	Psych. 110	Fundamentals of Psychology	3	
COGNATE	Psych. Elective	Psychology Elective		3
GE AREA III	Elective	Elective	3	
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 210	Ethics		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	CJ Elec.	Criminal Justice Electives	3	3
COGNATE	Pol. Sci. 130-Elec.	American Nat'l Gov.-Elective	3	3
COGNATE	Soc. Sci. Elec.	Social Science Electives	3	3
GE AREA I	Nat.Sci./Quant.*	Electives	3	3
GE AREA IV	Humanities	Elective	3	
GE AREA V	T/RS 122	Theology II		3
GE FREE	Elective**	Elective**	3	
			18	15
		SENIOR		
MAJOR	CJ Elec.	Criminal Justice Electives	3	3
MAJOR	CJ 480-481*/Elec.	Internship/Electives	3	3
COGNATE	Soc. Sci. Elec.	Social Science Elective	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil.—T/RS	Philosophy and/or Religious Studies	3	3
GE FREE	Electives	Electives	3	3
			15	15

TOTAL: 127 credits

Department Recommendations:

* In GE Area I, the department recommends Nursing 100, Family Health, Physics 102, 103, 106; C/CJ 200, Forensic Chemistry. In GE AREA III, CMPS 104 and Engl. 211, Writing for Law, are highly recommended. If the student has not otherwise satisfied the University's proficiency requirements, Engl. 110 and Comm. 100 must be taken. In GE AREA IV, the department recommends Hist. 110-111, History of the U.S.; H/PS 317-318, American Constitutional and Legal History; Engl. 131, Black Literature. In GE AREA V, T/RS 325, Church and Contemporary Social Issues.

** In the Free Area, the department strongly recommends Acc. 253, Financial Accounting; Acc. 254, Managerial Accounting; Mgt. 108, Organization and Management.

In the COGNATE, the department recommends Pol. Sci. 210, State Government; Pol. Sci. 211, Local Government; Psych. 225, Abnormal Psychology; Soc. 116, Community Organization; Soc. 118, Child Welfare; Soc. 231, Urban Sociology; Soc. 224, American Minority Groups.

MINOR. A minor in Criminal Justice will require eighteen credits. There are three required courses: Soc. 110: Principles of Sociology; CJ 110: Introduction to Criminal Justice; and S/CJ 213: Criminology. The following elective courses are strongly recommended by the department in the criminal justice sequence: CJ 212: Criminological Research; S/CJ 214: Juvenile Delinquency; S/CJ 210: Law and Society; and CJ 312: Criminal Law.

CJ 110 Profs. Friedrichs, Baker
Introduction to Criminal Justice 3 credits
(Formerly CJ 20) A foundation course examining problems in the study of crime and criminal justice, basic elements of criminal law and constitutional rights, and the functions of, as well as the relationship between, major components of the criminal justice system; agencies and role of law enforcement; prosecution; the judicial process, and corrections.

S/CJ 210 Prof. Friedrichs, Dr. Talamini
Law and Society 3 credits
(Formerly S/CJ 123) The relationship between law and society, or the interaction of legal and social variables. Examines jurisprudential and social theories of law; types of legal systems; ideology and legitimacy of law; development of law; the role of the legal profession; legal behavior and decision-making; and law and social change.

S/CJ 212 Dr. Rielly
Criminological Research 3 credits
(Formerly S/CJ 112) Survey of methods and techniques for achieving interpretable results in research in the criminal justice field; research design; data collection.

S/CJ 213 Drs. Rielly, Wright
Criminology 3 credits
(Formerly S/CJ 103) Crime as a form of deviant behavior; nature and extent of crime; past and present theories; evaluation of prevention, control and treatment programs.

S/CJ 214 Drs. Rielly, Wright
Juvenile Delinquency 3 credits
(Formerly S/CJ 113) Nature and extent of delinquency: competing explanatory models and theories; evaluation of prevention, control, and treatment programs.

S/CJ 218 Atty. Cimini
The American Court System 3 credits
(Formerly S/CJ 132) The court as a key component of the criminal justice system is examined. Philosophical, historical, comparative and typological perspectives are reviewed; the organization, structure and procedures of the court are analyzed, and roles of the major courtroom participants are explored. Court administration, planning and reform.

S/CJ 220 Atty. Cimini, Drs. Wright, Rielly
Penology: The American Correctional System 3 credits
(Formerly S/CJ 128) Analysis and evaluation of contemporary correctional systems; theories of punishment; discussion of recent research concerning the correctional institution and the various field services; the history of corrections in Pennsylvania.

S/CJ 221 Mr. Conlon, Dr. Wright
Probation and Parole 3 credits
(Formerly S/CJ 127) Examination of community treatment in the correctional process; contemporary usage of presentence investigation, selection, supervision, release of probationers and parolees.

S/CJ 224 Prof. Friedrichs
Sociology of Deviance 3 credits
(S/CJ 117) Critical examination of theories and empirical studies of social deviance, focusing upon the formulation and application of deviant labels, organizations relating to deviance, and deviant behavioral patterns. Special attention given to non-criminal forms of deviance.

S/CJ 225 Prof. Friedrichs
White Collar Crime 3 credits
(Formerly S/CJ 116) A study of white collar crime, including corporate misdeeds, political corruption, occupational illegalities and upperworld deviance. This course will explore the causes, consequences, and criminal justice system response to white collar crime.

S/CJ 227 Prof. Baker
Organized Crime Patterns 3 credits
(Formerly S/CJ 115) The national and international organizational structure of organized crime will be analyzed. Primary attention will be given to comparative theories and concepts. The various methods of prosecution, investigation, and control will be discussed.

CJ 230 Prof. Baker
Crime Prevention 3 credits
(Formerly CJ 140) This course analyzes the basic theories of crime prevention and will examine current developments in risk management and loss prevention. A review of crime prevention concepts utilized in the public and private sectors will focus on programs involving citizens, community and agency interrelationships.

S/CJ 232 Prof. Baker
Public Safety Administration 3 credits
(Formerly S/CJ 142) An overview of the public safety field—its philosophy, disciplines and research. The course will focus on an examination of the police and governmental responses to disaster and accidents. A primary emphasis will be given to the various analytical approaches to the study of terrorism. Methods of planning, investigation and prevention will be discussed.

S/CJ 234 Prof. Baker
Criminal Justice Management 3 credits
(Formerly S/CJ 129) Basic principles and practices of administration and their application to law enforcement. Relationship of theoretical administrative concepts and practical police problems.

CJ 237 Prof. Baker
The Investigative Process 3 credits
(Formerly CJ 124) This course considers appropriate investigative procedures concerning major criminal investigations. An analysis of specific investigative theories and courtroom applications will be conducted through learning simulation. The homicide court problem will focus on the preservation and admission of evidence.

S/CJ 284 Staff
Special Topics in Criminal Justice 3 credits
(Formerly S/CJ 122) Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum. Prerequisite: consent of the Chairperson and the Instructor.

CJ 310 Atty. Cimini
Criminal Justice Process 3 credits
(Formerly CJ 125) A study of the law of criminal procedure, treating investigation and police practices, preliminary proceedings, and trial, as they relate to the development and structure of the American criminal justice system and as they affect offenders.

CJ 312 Atty. Cimini
Criminal Law 3 credits
(Formerly CJ 126) A study of substantive criminal law in view of its historical foundations, purpose, functions and limits; of crime and defenses generally; and of the elements which constitute certain specific crimes under state and federal statues.

S/CJ 314 Atty. Cimini
The Bill of Rights & C.J. 3 credits
(Formerly S/CJ 131) From the perspective of the criminal justice professional, this course addresses key principles enunciated in the first, fourth, fifth, sixth, eighth and fourteenth amendments to the Constitution of the United States.

S/CJ 316 Atty. Cimini
Principles of Evidence 3 credits
(Formerly S/CJ 133) An examination of the law of evidence as it pertains to the trial of a criminal case. A discussion of the common law, pertinent statutes, judicial opinions, and rules such as the federal rules of evidence, as these relate to such concepts as direct and circumstantial evidence; opinion testimony, experts and exhibits; competence, relevance and materiality; privileges, hearsay and its exceptions.

S/CJ 317 Atty. Cimini
Trial, Jury and Counsel 3 credits
(Formerly S/CJ 134) A consideration of the rights guaranteed by the Sixth Amendment to the Constitution of the United States, surveying constitutional provisions, statutes, court rules and cases concerning the right of a criminal defendant to a speedy and public trial, to trial by jury, and to the assistance of counsel.

S/CJ 318 Atty. Cimini
Civil Liability 3 credits
(Formerly S/CJ 145) An examination of the law enforcement officer or employee as a defendant in a civil suit arising from the scope of his employment. Liability based upon rights statutes is examined, along with a consideration of the typical defenses.

S/CJ 324 Prof. Friedrichs
Victimology 3 credits
(Formerly S/CJ 104) An examination of the causes and consequences of crime victimization. The recent emergence of the study of the victim, the types and circumstances of victimization, and the nature of the criminal justice system's response to crime victims are considered, along with the ethical and practical dimensions of crime victimization.

CJ 382-383 Staff
Independent Study 3 credits
in Criminal Justice
(Formerly CJ 191) Directed projects and surveys in criminal justice, law enforcement, and corrections designed to give the student academic flexibility. Prerequisite: consent of the Chairperson and the Instructor.

CJ 480-481 Prof. Baker, Dr. Rielly
Internship Experience 3 credits
(Formerly CJ 198-199) Supervised field work in an approved criminal justice setting taken preferably in junior and senior year. Prerequisite: permission of Instructor.

Joseph Kalinowski, 1990 Criminal Justice graduate, confers with Mr. Joel Wetherington, Chief U.S. Marshal of the Middle District of Pennsylvania, and Mr. Edward Pupil, U.S. Marshal of the Middle District.

ECONOMICS

DR. GIUNTA, *Chairperson*

The Arts and Sciences major in Economics offers students a strong general liberal arts background and at the same time a thorough grounding in the most quantitative of the social sciences. Its major requirements parallel those of the school of Management Economics major (see p. 142), while its cognate provides background in the social sciences. This major is especially appropriate for students intending graduate studies in Economics, or careers in law or government service. Course descriptions for major courses begin on p. 143.

ECONOMICS

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Eco. 151, 152	Princ. of Economics I, II	3	3
GE I	Math Option	Math Option**	3/4	3/4
GE III	Communications	Electives:		
		Comm 100, Engl 110*	3	3
GE IV	Humanities	Electives: Hist 110, 111*	3	3
GE V	Phil. 120-T/RS 121	Intro. to Philosophy-Theology I	3	3
PHYS ED	Ph. Ed.	Physical Education	1	1
			16/17	16/17
		SOPHOMORE		
MAJOR	Eco. 361, 362	Intermed. Economics I, II	3	3
MAJOR	QMS 253	Statistics for Economics		3
COGNATE	Acc. 253, 254	Financial, Managerial Acctg.	3	3
GE III	CMPS 104	Computg. for Bus. & Soc. Sci.	3	
GE IV	Humanities	Elective,Elective	3	3
GE V	Phil. 210-T/RS 122	Ethics Theology II	3	3
PHYS ED	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Eco. 460, Eco. 351	Money & Fin; Envirnm. Intl. Bus.	3	3
MAJOR	Eco. Option	Electives	3	3
COGNATE	Electives	Electives***	6	6
GE I	Nat. Sci.	Elective		3
GE IV	Humanities	Electives	3	3
			15	18
		SENIOR		
MAJOR	Eco. Option	Elective	3	
MAJOR	Eco. El, Eco. Sem	Elective, Seminar	3	3
COGNATE	Electives	Electives***	4	3
GE V	Phil, T/RS	Electives	3	3
GE FREE	Free Area	Electives	3	6
			15	15

TOTAL: 127/129 credits

* Recommended by the department.

** See the math options on page 137. The student majoring in economics will take the first two courses in one of the three options.

*** Economic majors may apply up to six cognate credits toward a Math minor. Students taking Math Option B are strongly urged to complete the calculus sequence by taking Math 222, particularly if they plan on pursuing graduate studies.

Economic majors registered in the College of Arts and Sciences will apply their elective cognate credits to the following areas (exceptions require the permission of the CAS Dean): Political Science, Psychology, Public Administration, Sociology. Nine of these credits must be in the same field. Care must be taken to observe prerequisites.

The student majoring in economics will select three courses from either the A or the B option:

A: Industrial Org. & Regulat., Labor Econ. & Labor Regulat., Public Finance & Taxat., Mgrl. Econ., Urban & Regl. Econ.

B: Intl. Econ. & Finance, Development Econ., Comparative Econ. Syst., Economic Geography.

ELECTRONICS ENGINEERING

DR. VAN GELDER, *Director*

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind. The Electronics Engineering major of the Department of Physics/EE prepares the student for the analysis and design of electronic systems and devices whose principal functions are the shaping and control of information.

The office of career services reports that last year electronics engineers were offered among the highest starting salaries of all University of Scranton graduates.

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
COGNATE	Phys. 140-141	Elements of Physics I-II	4	4
COGNATE	Math 114-221	Analysis I-II	4	4
GE AREA III	CMPS 134	Computer Science I	3	
GE AREA III	Communications	Electives*	3	3
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	
			18	17
		SOPHOMORE		
MAJOR	EE 240	Intro. Digital Circuits	3	
MAJOR	EE 241	Circuit Analysis		5
MAJOR	Engr. 250-252	Statics-Solid State Materials	3	3
MAJOR	Engr. 253	Intro. to C.A.D.	1	
MAJOR	Engr. 254	Intro. to Mech. Design		1
COGNATE	Phys. 270	Modern Physics	4	
COGNATE	Math 222	Analysis III	4	
COGNATE	CMPS 362	Numerical Analysis		3
COGNATE	Chem. 112	General and Analytical Chem	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	T/RS 122	Theology II		3
			18	18
		JUNIOR		
MAJOR	EE 342	Signals and Systems	3	
MAJOR	EE 343-344	Electronic Circuits I-II	5	5
MAJOR	EE 345	Digital System Design		5
MAJOR	EE 346	Digital Signal Processing		3
COGNATE	Engr. 350	Applied and Engineering Math.	3	
COGNATE	Elective	Technical Elective**		3
GE AREA II	Soc./Behavioral	Electives	6	3
			17	19
		SENIOR		
MAJOR	EE 447-448	Electromagnetics I-II	3	4
MAJOR	EE 449	Computer Interfacing	4	
MAJOR	EE 450	Control Systems	3	
MAJOR	EE 451	Communications Systems		3
MAJOR	EE 452-453	VLSI I-II	3	2
MAJOR	EE 454	Senior Design Project		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 210-T/RS	Ethics-Elective	3	3
			19	18
			TOTAL:	144 credits

* The Department recommends Engl. 110 and Comm. 100

** An Advanced technical course approved by the department.

ELECTRONICS-BUSINESS

The state of the business world today is such that a major portion of its administrative effort must be geared to the supervision of persons engaged in complex technological processes often involving applications of electronics. As a consequence, the ideal administrator is now one who is conversant with both good business practice and technological know-how.

The Electronics-Business major provides a student with a program of carefully selected business and economics courses coupled with a series of coordinated physics and electronics engineering courses so as to provide preparation for an administrative career in an electronically oriented business enterprise. The program also provides sufficient preparation for further studies leading to the Master's in Business Administration.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
COGNATE	Phys. 140-141	Elements of Physics I-II	4	4
COGNATE	Math 103-114 or Math 114-221	Pre-Calculus Math.-Analysis I or Analysis I-II	4	4
GE AREA II	Eco. 151-152	Principles of Economics I-II	3	3
GE AREA III	Communications	Electives*	3	3
GE AREA III	CMPS 134	Computer Science I		3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			18	18
		SOPHOMORE		
MAJOR	EE 240	Intro. to Digital Circuits	3	
MAJOR	EE 241	Circuit Analysis		5
MAJOR	Engr. 252	Solid State Material Science		3
MAJOR	Engr. 253	Intro. to C.A.D.	1	
MAJOR	Engr. 254	Intro. to Mech. Design		1
MAJOR	Acc. 253-254	Financial, Managerial Acct.	3	3
COGNATE	Math 221-222 or Math 222-CMPS 362	Analysis II-III Analysis II-Numerical Analysis	4	3/4
COGNATE	Phys. 270	Modern Physics	4	
GE AREA IV	Humanities	Elective	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			19½	19½
		JUNIOR		
MAJOR	EE 343-344	Electronic Circuits I-II	5	5
MAJOR	QMS 251-252	Statistics for Business I, II	3	3
GE AREA II	Soc./Behavior	Elective		3
GE AREA IV	Humanities	Electives	6	
GE AREA V	Phil. 210	Ethics	3	
GE AREA V	T/RS 122	Theology II	3	
GE FREE	Elective	Elective		3
			17	17
		SENIOR		
MAJOR	Mgt. 351-Mkt. 351	Organization & Management-Managerial Marketing	3	3
MAJOR	Fin. 351-POM 352	Corporation Finance - Production and Operations Management	3	3
MAJOR	QMS 351	Intro. to Management Science	3	
GE AREA II	Social Science	Elective	3	
GE AREA IV	Humanities	Electives	3	6
GE AREA V	Phil-T/RS	Electives	3	3
			18	15

TOTAL: 143½ credits

* Comm. 100 & Engl. 110 are recommended.

PRE-ENGINEERING

The University also provides a pre-engineering program which introduces the student to the highly technical training necessary for all phases of the engineering profession. This is a two-year course which enables the student to transfer to an engineering school to complete his degree work.

Of special importance is the University of Scranton's association with the Cooperative Engineering Program at the University of Detroit, and its programs in chemical, civil, electrical, environmental, and mechanical engineering. For the student who has completed the pre-engineering curriculum at the University of Scranton, the Detroit three-year cooperative program offers alternate semesters of formal instruction and work experience in industry. A direct transfer program is available with Widener College, which may be either a Co-op program beginning in the summer preceding the Junior Year or a regular two-year program. In addition to the valuable experience gained from industry, many students have been able to pay the cost of their tuition from the remuneration received for their work. This amounts to a substantial equivalent scholarship grant.

Other engineering schools into which University of Scranton students transfer include Lehigh, Bucknell, Penn State and Drexel.

Generally, different engineering programs have slightly different requirements which must be completed before starting the Junior year. These will vary from school to school. Therefore, students should, before beginning the Sophomore year, consult with an advisor at the institution at which they plan to complete their studies.

ENGINEERING TRANSFER PROGRAM

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN	FALL	SPRING
COGNATE	Phys. 140-141	Elements of Physics I-II	4	4
COGNATE	CMPS 134	Computer Science I	3	
COGNATE	Math 114-221	Analysis I-II	4	4
GE AREA III	Communications	Elective*	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Introduction to Theology		3
GE AREA II or IV	Elective	Social Science or Humanities Elective		3
PHYS EDUC	Ph. Ed.	Physical Education	1	
			18	17
		SOPHOMORE		
MAJOR	EE 240	Intro. to Digital Circuits	3	
MAJOR	EE 241	Circuit Analysis		5
MAJOR	Engr. 250-252	Statics—Solid State Materials	3	3
MAJOR	Engr. 253	Intro. C.A.D.	1	
MAJOR	Engr. 254	Intro. Mech. Design		1
COGNATE	Phys. 270	Elements of Modern Physics	4	
COGNATE	Math 222-341	Analysis III—Diff. Equations	4	4
COGNATE	Chem. 112-113	General and Analytical Chem.	3	3
GE FREE	Elective	Elective		3
			18	19
			TOTAL: 72 credits	

* The Department recommends Engl 110, Composition, or if exempt, Engl. 111, Technical and Business Writing.

ENGR. 250 Staff
Engineering Mechanics-Statics 3 credits
(Formerly Engr. 21; prerequisite: Physics 140; Pre- or corequisite: Math 221) Various types of force systems; resultants and conditions of translational and rotational equilibrium; stress analysis of the parts of different types of structures by graphical, algebraic and vector methods; frictional forces; centroids and second moments of areas of solids. 3 hours lecture.

ENGR. 251 Staff
Engineering Mechanics-Dynamics 3 credits
(Formerly Engr. 22; prerequisite: Engr. 250; Pre- or corequisite: Math 222) Kinematics of particles and rigid bodies which include linear, curvilinear, angular and relative motions; inertia forces, impulse, momentum, work, energy and power; mechanical vibrations. 3 hours lecture.

ENGR. 252 Prof. Kalafut
Solid State Materials Science 3 credits
(Formerly Engr. 23; prerequisites: Physics 270, Math 222) The crystalline state of matter; multielectron atoms and the band theory of solids; quantum statistics; applications to p-n junction diodes including photodetectors, LEDs and photovoltaics; biopolar and field effect transistors; transistor modeling. 3 hours lecture.

ENGR. 253 Dr. Connolly
An Introduction to Computer Aided Design 1 credit
(Formerly Engr. 32; prerequisites: Math 114, Cmps. 134) This course is an introduction to the methods of drafting and design using computer aided techniques. Topics to be covered include plan geometry constructions, projection theory, sectional views, dimensioning, tolerancing and the development of working drawings. Extensive use will be made of commercially available CAD software packages. 2 hours laboratory.

ENGR. 254 Dr. Connolly
An Introduction to Mechanical Design 1 credit
(Formerly Engr. 33; prerequisites: Engr. 250, Engr. 253) An introduction to the design of structures and machines using the principles of mechanics and strength of materials. Topics to be covered include force analysis, stress, strain, tension, compression, shear, bending of beams, elastic and inelastic properties of materials. CAD techniques will be emphasized in the design process. 2 hours laboratory.

ENGR. 350 Dr. Fahey
Applied and Engineering Mathematics 3 credits
(Formerly Engr. 114 or Phys. 118; prerequisite: Cmps. 362, Physics 141) First and second order differential equations with constant coefficients; Fourier series and Fourier Transforms; partial differential equations and boundary value problems; special functions, e.g. Bessel functions and Legendre polynomials; elementary probability theory. (Also listed as Physics 350.) 3 hours lecture.

ENGR. 352 Staff
Statistical and Engineering Thermodynamics 3 credits
(Formerly Engr. 122 or Phys. 22; prerequisite: Phys. 270) Derivation of Thermodynamics from probability theory and atomic physics; Laws of Thermodynamics; Maxwell relations; chemical potential and phase changes; refrigerators and heat pumps; theory of gasses and theory of solids. Special topics dependent upon interests of major represented. (Also listed as Physics 352.) 3 hours lecture.

EE 240 Dr. Berger
Introduction to Digital Circuits 3 credits
(Formerly EE 30) Introduction to combinational and sequential digital logic circuits. Analysis and design techniques including Boolean Algebra and Karnaugh mapping. Use of the computer to simulate digital circuits. 3 hours lecture.

EE 241 Dr. Van Gelder
Circuit Analysis 5 credits
(Formerly EE 41 or EE 24; prerequisite: Physics 141, Pre- or corequisite: Math. 222) Intermediate course treating Kirchhoff's Laws, resistive networks, systematic methods, network theorems, first and second order transients, and sinusoidal steady-state. Introduction to SPICE. 4 hours lecture and 2 hours laboratory.

EE 342 Dr. Van Gelder
Signals and Systems 3 credits
(Formerly EE 100; prerequisites: EE 241, Cmps. 362) Fourier and Laplace Transforms are developed and applied to the analysis of linear continuous-time circuits and systems. Introduction to discrete-time systems and Z-Transforms. State-variable analysis and computer techniques. 3 hours lecture.

EE 343 Dr. Varonides
Electronic Circuits I 3 credits
(Formerly EE 102 or EE 106; prerequisites: EE 241, Engr. 252) Analysis and design of analog electronic circuits using diodes, BJTs, and FETs. Emphasis is placed on amplifier circuits and their frequency dependence. 3 hours lecture.

EE 343L Dr. McGinnis
Electronic Circuits I Lab 2 credits
(Formerly EE 102L; corequisite: EE343) Experiments with diodes, BJTs, JFETs, and MOSFETs. Some of the experiments are short projects to introduce the student to the application of design principles. 3 hours laboratory.

EE 344 Dr. McGinnis
Electronic Circuits II 5 credits
(Formerly EE 103 or EE 112; prerequisite: EE 342, EE 343, EE 343L) Laboratory oriented course designed to acquaint students with the operation and design of electronic instrumentation. Analysis of electronic instruments used in various applications and the design of special purpose instrumentation. Emphasis on use of operational amplifiers in design situations. 2 hours lecture and 4 1/2 hours laboratory.

EE. 345 Dr. Berger
Digital Design System 3 credits
(Formerly EE 107; prerequisite: EE240) The design of digital systems and computer organization are studied. Emphasis is on the design of hardware components of computers such as the CPU, control logic, and the memory. 3 hours lecture.

EE. 345L Dr. DiStefano
Digital System Design 2 credits
Laboratory
(Formerly EE 107L; prerequisites: ENGR. 254, Corerequisite: EE. 345) Introduction into the design, construction and testing of digital logic circuits. Most of the major components of a computer will be investigated. Use of AUTOCAD computer program to draw circuits and designs. 3 hours laboratory.

EE 346 Dr. Berger
Digital Signal Processing 3 credits
(Formerly EE 115; prerequisite: EE 342) A study of discrete-time signals and systems, convolution, z-transform, discrete Fourier transform, and FFT algorithms. Analysis and design techniques for digital filters and their realizations. Emphasis will be on the use of computer-aided interactive digital signal processing programs for several projects on signal analysis and filter design. 3 hours lecture.

EE 447 Dr. Berger
Electromagentics I 3 credits
(Formerly EE 116 or EE 104; prerequisites: Physics 270, Engr. 350) Analytic treatment of electrical and magnetic theory; vector calculus of electrostatic fields; dielectric materials; vector calculus of magnetic fields. (Also listed as PHYS 447). 3 hours lecture.

EE 448 Dr. Berger
Electromagnetics II 3 credits
(Formerly EE 117 or EE 105; prerequisite: EE 447) Magnetic materials, electromagnetic induction, displacement currents, Maxwell's equations; radiation and waves; applications include transmission lines, wave guides, and antennas. (Also listed as PHYS 448). 3 hours lecture.

EE 448L Dr. Doiron
Electromagnetics Design 1 credit
Laboratory
(Formerly EE 117 L or EE 105 L; corequisite: EE 448) Laboratory designed to emphasize and reinforce the experimental basis of electromagnetism. Multi-week projects require the student to perform experiments that measure fundamental electrical constants, the electrical and magnetic properties of matter, and the properties of electromagnetic waves. (Also listed as PHYS 448 L). 2 hours laboratory.

EE 449 Dr. Spalletta
Computer Interfacing 4 credits
(Formerly EE 118 or EE 110; prerequisites: EE 344, EE 345, EE 346) Microprocessor programming and interfacing; data acquisition, manipulation and transmission; microprocessor support devices and common computer interfaces. 2 hours lecture and 4 hours laboratory.

EE 450 Dr. Van Gelder
Control Systems 3 credits
(Formerly EE 120; prerequisites: EE 342, EE 344, Engr 350) Review of system modeling and Laplace Transforms; block diagram reduction and signal flow graphs; transient and steady-state control system characteristics; root locus and frequency response methods of analysis and compensation design; state variable methods. 3 hours lecture.

EE 451 Dr. VanGelder
Communication Systems 3 credits
(Formerly EE 121 or EE 109; prerequisites: EE 342, EE 344, Engr. 350) A study of the principles of communication theory with emphasis given to analog and digital communications. Modulation techniques such as AM, DSB, SSB, and FM are discussed in detail. Performance of these systems in the presence of noise is also studied. 3 hours lecture.

EE 452 Dr. DiStefano
Very Large Scale 3 credits
Integration Devices I
(Formerly EE 124 or EE 108A; prerequisites: EE 344, EE 345) Analysis of MOSFET and CMOS circuitry. Use of computer programs such as SPICE, MAGIC, and CRYSTAL to design and analyze student design projects involving tens of transistors. 1 hour lecture and 3 hours laboratory.

EE 453 Dr. DiStefano
Very Large Scale 2 credits
Integration Devices II
(Formerly EE 125 or EE 108B; prerequisite: EE 452) Continuation of EE 452. Student designs are part of a class project and may involve hundreds of CMOS circuits. 3 hours laboratory.

EE 454 Staff
Senior Design Project 3 credits
and Professional Practice
(Formerly EE 129 or EE 111; prerequisites: EE 449, EE 450) Students work with a faculty advisor or a practicing electronics engineer to consider realistic, generally unsolved problems from current technology. Projects involve creative conception, design, development and evaluation. The designs must consider economic constraints as well as factors such as reliability, safety, and societal impact. Written and oral presentation before a group of faculty. 1 hour lecture and 3 hours laboratory.

ENGLISH

DR. JORDAN, *Chairperson*

The student majoring in English must take English 140 (English Inquiry), and eleven other English courses. Six of these courses must satisfy six area requirements: **A.** British Literature: Medieval and Renaissance; **B.** British Literature: Restoration and Eighteenth Century; **C.** British Literature: Romantic and Victorian Periods; **D.** American Literature to 1865; **E.** Modern British Literature; **F.** American Literature, 1865-Present. **The student is urged to fill these area requirements sequentially.** The pattern listed below suggests one way of satisfying this requirement. To determine what other courses will satisfy this requirement, students should consult their faculty advisors or chairperson.

English majors may not take any of the following courses as part of the English major: ENGL 101, 102, 103, 104, 202, 203, 204, 205, 206.

After freshman year, English majors may propose an alternate major program for the chairperson's approval. The department also offers two special "tracks": the **Writing Track** and the **Theatre Track.** Completion of these tracks will be noted on the student's transcript. Writing track courses include English 111, 211, 213, 214, 310, 313, 314, 413, 414. To pursue this track the student must take a minimum of five of these courses including at least one course in Creative Writing and one in Applied Writing. Theatre track courses include English 115, 116, 215, 216, 280, 315. To pursue this track the student must take a minimum of five of these courses.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Engl. 140-164	English Inquiry—British Literature (Area A)	3	3
COGNATE	Electives	Cognate	3	3
GE AREA I	Nat. Sci./Quant.	Elective		3
GE AREA II	Social/Behavior	Electives	3	3
GE AREA III	Communications	Elective	3	
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Engl. 244-264	British Literature (Areas B,C)	3	3
COGNATE	Electives	Foreign Language or other Cognate	3	3
GE AREA I	Nat. Sci/Quant.	Electives	3	3
GE AREA III	Communications	Electives	3	3
GE AREA V	Phil. 210	Ethics	3	
GE AREA V	T/RS 122	Theology II		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Engl. 344-364	Required and Elective Courses (Areas D,E)	6	6
COGNATE	Electives	History or other cognates	3	3
GE AREA II	Social/Behavior	Electives	3	3
GE AREA V	Phil-T/RS	Philosophy and/or Religious Studies	3	3
GE FREE	Elective	Elective		3
			15	18
		SENIOR		
MAJOR	Engl. 444 -Elec.	Required (Area F) and Elective Courses	6	6
COGNATE	Electives	Foreign Literature or other Cognates	3	3
GE AREA IV	Humanities	Electives	3	3
GE FREE	Electives	Electives	3	3
			15	15

TOTAL: 127 credits

For Freshman COGNATE sequence, History 120-121 or foreign language is recommended. For G.E. Area III, if student does not otherwise satisfy the University's proficiency requirements, Engl. 110 and Comm. 100 are required.

ENGLISH MINOR. To minor in English the student must take a minimum of 15 credits. Two courses are required: 1) English 110 (Composition) and 2) English 102, 103, 104, 133, or 140. The remaining three courses must be courses that would satisfy English major requirements. The department suggests that the individual student cluster his or her choices around courses within any specific period (American Literature, e.g.) or any literary genre (the Drama, e.g.).

THEATRE MINOR. To minor in Theatre the student must take a minimum of eighteen credits. Two courses are required: 1) English 104 (Intro to Drama) and 2) English 217 (History of the Theatre). The remaining twelve credits must be from the following courses: English 115, 116, 117, 118, 215, 216, 280, 315, 316, 414. One of the four elective courses may also be an advanced dramatic literature course, such as English 222, 223, or 427.

ENGL. 101 Staff
Introduction to Literature 3 credits
(Formerly Engl. 20) An exploration of the nature of prose fiction, poetry, and drama. The emphasis is critical rather than historical. The range of works and the specific selections may vary with the individual instructor.

ENGL. 102 Staff
Introduction to Fiction 3 credits
(Formerly Engl. 25) An exploration of the nature of prose fiction, its elements and techniques. The emphasis is critical rather than historical. The range of works and the specific selections may vary with the individual instructor.

ENGL. 103 Staff
Introduction to Poetry 3 credits
(Formerly Engl. 26) An exploration of the nature of poetry, its value, aims, and techniques. The emphasis will be critical rather than historical. The range of poems and the specific selections will be the choice of the individual instructor.

ENGL. 104 Staff
Introduction to Drama 3 credits
(Formerly Engl. 27) An exploration of the nature of drama, its types, techniques, and conventions. The emphasis will be critical rather than historical. The range of plays and the specific selections may vary with the individual instructor.

ENGL. 110 Staff
Composition 3 credits
(Formerly Engl. 7) A study of expository and argumentative prose, and the processes and techniques effective writers use. Classical rhetorical strategies, a variety of grammatical and theoretical approaches, and (often) computer programs are employed to help students understand composition as a means of communication and as a mind-shaping discipline in the liberal arts tradition. (GE Area III)

ENGL. 111 Dr. Fraustino
Technical & Business Writing 3 credits
(Formerly Engl. 9; Prerequisite: Engl. 110) A course in scientific or technical writing designed to help students improve their writing skills in preparation for their professions. Specialized training is offered in writing of proposals, reports, instructions, letters, abstracts, resumes, etc. (GE Area III)

ENGL. 115 Dr. Roberts
Introduction to Theatre 3 credits
(Formerly Engl. 107) An exploration of the various artists and managers in theatre; such as actors, playwrights, directors, and set, lighting, and costume designers. The various "schools" of acting, designing, etc. are studied from an historical and practical viewpoint. Students work on a major university production as a course requirement.

ENGL. 116 Dr. Roberts
Introduction to Acting 3 credits
(Formerly Engl. 108) This first course of a three-course sequence focuses on the actor's work on himself. Basic acting exercises, short "contentless scenes," improvisations, and theatre "games" are employed to demonstrate and develop the fundamental elements of the actor's craft.

ENGL. 117 Staff
Introduction to Technical Theatre 3 credits
A study of materials, equipment, and techniques used in the construction and finishing of scenery. Also includes principles of lighting and sound and special effects for the stage. Afternoon studio sessions and participation on a technical crew for a major University Players' production will be required.

ENGL. 118 Staff
Introduction to Design for Theatre 3 credits
An introduction to the theory, aesthetics, and practices of design for the theatre. Principles of color, line, texture, and form will be studied. Afternoon studio sessions including practical experience in drafting will be required.

ENGL. 119-120 Dr. Jordan
Masterworks of Western Civilization 6 credits
(Formerly Engl. 172-173) Study of masterpieces of literature from the Hebrew Old Testament and classic Greek to the modern European, illuminating the development of Western civilization.

ENGL. 121 Dr. Jordan
Myth of the Hero 3 credits
(Formerly Engl. 171) Mythic materials are examined to discover the underlying heroic archetypal patterns. Then modern literature is examined in the light of the same mythic patterns.

ENGL. 124 Dr. McInerney
History of Cinema 3 credits
(Formerly Engl. 114) A study of historical development of motion pictures. Practitioners in America and throughout the world are treated in this concise history of cinema. Film screening fee. (GE Area IV)

ENGL. 125 Dr. McInerney
The Art of Cinema 3 credits
(Formerly Engl. 115) The study of the artists, technicians and businessmen who make films. Taped interviews of internationally famous film makers, as well as an analytic scrutiny of modern films, develop students' intelligent, active participation in the major art form in modern culture. Film screening fee. (GE Area IV)

ENGL. 126 Dr. McInerney
Film Genres 3 credits
(Formerly Engl. 116) A study of the popular film genres (i.e., the western, the thriller, the musical, the historical epic, the woman's picture as they developed and changed in the U.S. and abroad.) Film screening fee. (GE Area IV)

ENGL. 127 Dr. McInerney
Film Criticism 3 credits
(Formerly Engl. 117) A study of the grammar, poetics, rhetoric, and aesthetic of film criticism constitutes the heart of this course. Film screening fee. (GE Area IV)

ENGL. 129 Prof. Schaffer
Introduction to Jewish Literature 3 credits
(Formerly Engl. 142) The course provides a broad literary overview of Jewish life from medieval times to the present, examining the poetry, fiction, memoirs, and drama of Jewish writers from a variety of cultures.

ENGL. 130 Prof. Johnson
Children's Literature 3 credits
(Formerly Engl. 177) A broad study of literature for children since 1800, with the emphasis on American works since 1950, including aesthetic consideration of the art and design of picture books. Works are considered for children up to the age of 12.

ENGL. 131 Staff
Black Literature 3 credits
(Formerly Engl. 164) This is an introductory survey course in Afro-American literature featuring an in-depth examination of the works of major Black authors from the colonial American period to the present.

ENGL. 132 Staff
The Bible as Literature 3 credits
(Formerly Engl. 174) A non-theological examination of the major literary achievements of the Old and New Testaments, emphasizing the generic diversity and aesthetic richness of their individual components.

ENGL. 133 Dr. Whittaker
Introduction to Irish Culture 3 credits
(Formerly Engl. 28) An exploration of Irish culture by means of the island's major works of mythology, history, religion, folk story, fairy tale, song, verse, drama, and fiction. All readings in English.

ENGL. 134 Staff
Shakespeare's Early and Middle Periods 3 credits
This course will consider Shakespeare's poetry and plays from the beginning of his career up to the writing of *Hamlet.* Students may expect to study some of the sonnets and narrative poetry, *A Midsummer's Night's Dream, Richard II, As You Like It, Hamlet,* and three or four of his other plays.

ENGL. 135 Staff
Shakespeare's Later Plays 3 credits
This course will focus on Shakespeare's dramatic output in the seventeenth-century—the period many consider to have produced his greatest works. Students may expect to study *Othello, King Lear, Macbeth, The Tempest,* and approximately four other plays.

ENGL. 139 Staff
Milton & 17th Century Poetry 3 credits
(Formerly Engl. 156) Studying the poetry of John Milton, "a major figure", the Metaphysical poets, and the Cavalier poets ought to bring the student to a reputable understanding of late English renaissance. The 17th century is a vital era for those wishing to understand the results of the Elizabethan Age and the onrush of the Restoration and 18th century poets.

ENGL. 140 Drs. Casey, Rakauskas, and Engel
English Inquiry 3 credits
(Formerly Engl. 11) An exploration of literature and of literary criticism. The approach is inductive; the aim is a greater understanding of literature, and a mastery of some techniques of literary scholarship.

ENGL. 164 Dr. Beal
British Literature: Medieval and Renaissance 3 credits
(Formerly Engl. 101) A detailed study of representative works and authors from the Anglo-Saxons to the seventeenth century. Though the emphasis will be on an intensive study of major works in their literary and cultural context, consideration will be given to minor writers as well.

ENGL. 202 Staff
English Literature 450-1800 3 credits
(Formerly Engl. 21) A study of English literature from *Beowulf* to the beginnings of the romantic movement. The emphasis is textual and critical.

ENGL. 203 Staff
English Literature 3 credits
1800 to the Present Day (Formerly Engl. 22) A study of English literature from romantic period to the middle of the twentieth century. The emphasis again is textual and critical.

ENGL. 205 Staff
American Literature through the Romantic Period 3 credits
(Formerly Engl. 23) A study of major figures in America's literature from the colonial period through the age of transcendentalism, including such figures as Edward Taylor, Jonathan Edwards, Hawthorne, Thoreau, Emerson, Melville, and Whitman.

ENGL. 206 Staff
American Literature to the Present Day 3 credits
(Formerly Engl. 24) The study of major figures in America's literature from the beginnings of realism to today's literature of revolt. Included will be such disparate authors as Twain, Dickinson, Dreiser, Lewis, Hemingway, Fitzgerald, Ginsberg.

ENGL. 210 Dr. Rakauskas, Prof. Hill
Advanced Composition 3 credits
(Formerly Engl. 112 or Media 111; prerequisite: Engl. 110 or exemption) The purpose of this course is to review, practice and apply the principles of a rhetoric of order, stressing invention, disposition, style, tone and theme. (GE Area III)

ENGL. 211 Dr. McInerney
Writing for the Law 3 credits
(Formerly Engl. 12; prerequisite: Engl. 110) This course aims to help the student develop the writing skills that will be of particular value to prospective lawyers. Readings, exercises, and assignments stress precision and conciseness as well as careful argument. The course should also be valuable to any student who wants to improve his/her analytical ability and expressive capacity. (GE Area III)

ENGL. 213 Prof. Schaffer
Fiction Writing I 3 credits
(Formerly Engl. 126) Designed to increase students' skills in writing short prose fiction, this course augments frequent practice in the genre with attention both to theories of short story composition and to diverse examples. In a workshop atmosphere, students will read and discuss one another's work as well as fiction by well known authors. (GE Area III or IV)

ENGL. 214 Prof. Hill
Poetry Writing I 3 credits
(Formerly Engl. 124) Theory and practice of writing poetry with attention to modern and contemporary tradition and criticism. Opportunity for sustained, serious response to student work and practical advice on markets, publishing procedures, etc. The course employs a workshop format and encourages serious reading and discussion of poetry. (GE Area III or IV)

ENGL. 215 Dr. Roberts
Intermediate Acting 3 credits
(Formerly Engl. 109) This semester's study focuses on the actor's work on the role. Building on the fundamentals of the acting process, students are required to perform a variety of characters in scripted scenes. Stress is given to imagination, dramatic action, and characterization. Prerequisite: Engl. 116.

ENGL. 216 Dr. Roberts
Advanced Acting 3 credits
(Formerly Engl. 110) This final semester in the acting sequence focuses on the problems of style, form, and period. Attention is given to voice and movement, the problems of verse, and the question of "style" in period plays. Students are required to perform scenes from both period and modern plays. Prerequisites: Engl. 116, 215.

ENGL. 217-218 Dr. Roberts
History of the Theatre 6 credits
(Formerly Engl. 151-152) A study of the various ages of Western theatre; the method is concentration on individual playwrights, the historical circumstances in which they lived and worked, the traditions they inherited.

ENGL. 219 Dr. Beal
Camelot Legend I 3 credits
(Formerly Engl. 155) The development of the "King Arthur Story" from the medieval period to the nineteenth century. Exploration of the legend's remarkable adaptability to different cultural and literary milieux.

ENGL. 220 Dr. Beal
Camelot Legend II 3 credits
(Formerly Engl. 157; prerequisite: Engl. 219 or Instructor's permission.) The development and elaboration of the legend in twentieth century forms: novels, musicals, movies and the short story. Emphasis on writing and class discussion.

ENGL. 221 Dr. Jordan
Modern Poetry 3 credits
(Formerly Engl. 146) Modern poets ranging from Yeats and Hopkins to Plath and Hughes are examined. Major emphasis is placed on close critical readings of representative works.

ENGL. 222 Dr. McInerney
Modern Drama 3 credits
(Formerly Engl. 150) A detailed introduction to the major trends and authors in 20th century British and American drama, with some Irish and Continental works included. Readings and assignments will focus on major figures such as Shaw, O'Neill, Miller, Williams.

ENGL. 223 Dr. McInerney
Dramatic Comedy 3 credits
(Formerly Engl. 149) Principles, modes, tactics used in dramatic comedy. The plays of writers ranging from Shakespeare to Neil Simon, as well as several films, will be analyzed as models. Opportunity for student writing of comedy.

ENGL. 224 Dr. DeRitter
Johnson and His Circle 3 credits
(Formerly Engl. 135) This course will examine the poetry and prose of Dr. Sam Johnson, the great 18th century author-critic, and will also treat the works of those talented writers whom he influenced directly. Analysis of prose strategies and poetic techniques will be stressed.

ENGL. 225 Dr. Whittaker
Writing Women 3 credits
In this course we will survey the issues raised in Virginia Woolf's *A Room of One's Own* and Carolyn G. Heilbrun's *Writing a Woman's Life.* We will discuss theoretical and practical essays incorporating British Marxist Feminism, French Psychoanalytic Feminism, and American Traditional Feminism. By the light of these approaches we will read short selections of fiction and poetry from Sappho to Willa Cather and Adrienne Rich.

ENGL. 231 Dr. Whittaker
Woody Allen 3 credits
This course examines the films, the published screenplays, the volumes of short prose, and assorted interviews and articles. We will examine some of Woody Allen's sources, such as Plato, Shakespeare, Joyce, and Bergman. Our approach will be historical and analytical.

ENGL. 244 Dr. DeRitter
British Literature: The Restoration and Eighteenth Century 3 credits
(Formerly Engl. 102) Study in depth of the major works of such authors as Dryden, Pope, Swift, Boswell, and Johnson, among others. Due attention will be given to critical analysis, literary research, and historical, social, and political background.

ENGL. 264 Drs. Casey and Fraustino
British Literature: Romantic and Victorian Periods Victorian Periods 3 credits
(Formerly Engl. 103) A study of major literary works in nineteenth century England: poetry, novels and non-fictional prose. The emphasis is threefold: critical analysis; literary history; social, intellectual and political background.

ENGL. 280 Dr. Roberts
Drama Practicum 3 credits
(Formerly Engl. 118) Work on one of the major aspects of producing a play: acting, costuming, set construction, lighting, publicity, and box office management. Prerequisite: Engl. 104 or advanced drama course (e.g., Engl. 134, 135, 136, 222, 223) or Engl. 140.

ENGL. 310 Dr. Rakauskas
Written Communication; Strategies for Teaching Writing 3 credits
(Formerly Engl. 125) This course for English/Ed majors emphasizes strategies for taking students into, through, and beyond the writing process. Students have many opportunities to plan and to design writing assignments, to conduct writing sessions, and to evaluate written composition. (GE Area III)

ENGL. 311 Prof. Heaton
Magazine Editing 3 credits
(Formerly Engl. 176) The process of editing is surveyed. Macro-editing (publishing for a defined audience and delighting, surprising, informing, and challenging it) is emphasized over micro-editing (grammar, punctuation, and so forth). Both are fit into the larger picture of promotion, fulfillment, circulation, advertising, production, and distribution.

ENGL. 313 Prof. Schaffer
Fiction Writing II 3 credits
(Formerly Engl. 129) Advanced workshop augments intensive student writing assignments with theory of fiction composition and diverse examples. English 213 is the prerequisite. (GE Area III or IV)

ENGL. 314 Prof. Hill
Poetry Writing II 3 credits
(Formerly Engl. 128) Advanced workshop on practice and theory of writing poetry. The course encourages extensive reading and intensive writing. English 214 is the prerequisite. (GE Area III or IV)

ENGL. 315 Dr. Roberts
Directing the Play 3 credits
(Formerly Engl. 111) Students first learn the stage director's approach to play analysis and the ways to arrive at a directorial concept for a particular play. The techniques of communicating concept to fellow theatre artists and audience are considered, followed by practical exercises in developing the scenic elements of production. The course culminates in a workshop of student-directed short plays open to the public. (Prerequisite: Engl. 116, or permission of instructor.)

ENGL. 316 Dr. Roberts
Theories of Theatre 3 credits
(Formerly Engl. 123) Students will study the theories of theatre advanced in the writing of Diderot, Archer, Stanislavsky, Vakhtangov, Brecht, Copeau, Artaud, Grotowski, Brook, and Schechner.

ENGL. 319 Dr. Casey
The English Novel: 18th & 19 Centuries 3 credits
(Formerly Engl. 154) The history of the English novel from its origins in the early 18th century until the end of the 19th century. The course focuses on such major figures as Defoe, Richardson, Fielding, Austen, Dickens and Eliot.

ENGL. 320 Dr. Passon
Introduction to Satire 3 credits
(Formerly Engl. 185) An exploration of the historical, critical, and conceptual nature of satire, including established satirical conventions and techniques. Representative examples in fiction, drama, and poetry, from a variety of literary periods, will be considered. Special emphasis will, however, be placed on British literature of the Restoration and Eighteenth Century, the Age of Satire. Though the course will focus on satirical literature, examples of satire from other media will be sampled.

ENGL. 321 Dr. Fraustino
Macabre Masterpieces 3 credits
(Formerly Engl. 189) This course studies works of horror—or Gothic—fiction in England and America that best exemplify this mode of writing as a serious art form in its exploration of the human mind, particularly abnormal psychology. Works we will read may include: Mary Shelley's *Frankenstein*, Robert Louis Stevenson's *Dr. Jekyll and Mr. Hyde*, Joseph Conrad's *Heart of Darkness*, Bram Stoker's *Dracula*, the works of Edgar Allan Poe, and others.

ENGL. 322 Prof. Hill
British Imperial Fiction 3 credits
(Engl. 143) The myths and meanings of the Imperial experience in the 19th and 20th centuries as represented in British fiction by Kipling, Conrad, Greene, Orwell and others.

ENGL. 323 Staff
Renaissance Poetry and Prose 3 credits
Detailed study and discussion of several varieties of English literature written between the time of Sir Thomas Moore and John Milton. Lyric and narrative poetry, fictional and non-fictional prose, and drama will be included in course readings, discussions, and assignments. Typical authors covered include More, Surrey, Lyly, Spenser, Sir Philip and Mary Sidney, Donne, Webster, Jonson, Marvell, and Milton.

ENGL. 324 Dr. Gougeon
American Romanticism 3 credits
(Formerly Engl. 165) This course will deal with representative short works of America's six major Romantic authors: Emerson, Thoreau, Whitman, Hawthorne, Melville, and Poe.

ENGL. 325 Dr. Gougeon
Major Works: 3 credits
American Romantics
(Formerly Engl. 166) Cooper's *The Prairie*, Emerson's *Nature*, Thoreau's *Walden*, Melville's *Moby Dick*, and others. Evaluation of the works in their historical context and the development of the American Romantic movement, 1820-65.

ENGL. 326 Fr. Joseph Quinn
Transcendentalists 3 credits
(Formerly Engl. 158) Course transcends typical limits of this literary period to Emerson and Thoreau's major works. Thus, Orestes Brownson, Margaret Fuller, Ellery Channing, Theodore Parker are covered.

ENGL. 330 Dr. Gougeon
Melville-Hawthorne 3 credits
(Formerly Engl. 137) This course will survey a significant sampling of the short works of two of America's most famous Romantic authors. Consideration will be given to the historical milieu and the authors' literary responses to the problems and promises of the American experience.

ENGL. 331 Fr. Joseph Quinn
Major Works of Twain and James 3 credits
(Formerly Engl. 160) Works to be studied include Twain's *Adventures of Huckleberry Finn* and *A Connecticut Yankee in King Arthur's Court;* James's *The Portrait of a Lady* and *The Ambassadors.* These works will be examined both in terms of their historical context and by way of a comparative analysis of the two authors.

ENGL. 332 Fr. Joseph Quinn
Major Works of 3 credits
Hemingway and O'Hara
Works to be studied include Hemingway's *The Sun Also Rises* and *For Whom the Bell Tolls;* O'Hara's *Appointment in Samarra* and *From the Terrace.* These will be examined both in terms of their historical context and basic themes, and by way of a comparative analysis of the two authors. There will also be some investigation as to how certain authors either become or do not become academically and critically acceptable.

ENGL. 333 Dr. Gougeon
The Development of the 3 credits
American Novel
This course will deal with representative novels produced in America from the late 18th to the 20th century. The course will focus on the novel as representative of changing literary and cultural values throughout the period. Authors considered will include Charles Brockden Brown, Nathaniel Hawthorne, Mark Twain, Kate Chopin, John Steinbeck, and Kurt Vonnegut, Jr.

ENGL. 334 Fr. J.J. Quinn
Irish Short Story 3 credits
(Formerly Engl. 148) Introduces American students to the variety and richness of the short story from the pens of such masters as Yeats, Joyce, Frank O'Connor, Lavin, Kiely, F. O'Brien, McGovern, Jordan, Trevor, Beckett and others. Serious craftsmen aware of the verbal tradition, shapers of the Literary Revival, these masters of language forge a literature that affirms spiritual values in the midst of material misery.

ENGL. 335 Fr. J. J. Quinn
Modern Irish Poets 3 credits
(Formerly Engl. 186) This course covers seven major modern Irish poets: Clarke, Kavanagh, Devlin, Murphy, Kinsella, Montague and Heaney. These selected poets and their selected poetry reveal a common lyrical tone in seven distinct voices.

ENGL. 336 Fr. J.J. Quinn
Modern Irish Novel 3 credits
(Formerly Engl. 187) A selective introductory course to Ireland's renowned modern novelists: Francis Stuart, John McGahern, William Trevor, Neil Jordan, Brian Moore, Bernard MacLaverty, John Banville and others. These literary artists capture the verve, flavor, and life illumination that distinguish today's Irish novels.

ENGL. 344 Fr. Joseph Quinn, Dr. Gougeon
American Literature to 1865 3 credits
(Formerly Engl. 104) An in-depth study of a select group of major American authors from the Colonial Period to the Civil War. Included are Bradford, Franklin, Irving, and Poe. Consideration given to the historical and cultural milieu and development of major American themes and attitudes.

ENGL. 364 Staff
Modern British Literature 3 credits
(Formerly Engl. 105) Selected modern and postmodern English poets, playwrights, and fiction writers: Hopkins, Eliot, Hughes, Auden, Larkin, Spender, Osborne, Stoppard, Pinter, Greene, Waugh, Read, Lodge, Amis, Spark, McEwan, and Chatwin.

ENGL. 370 Staff
Major Authors-Spenser & Sidney 3 credits
This course will explore in depth the works of two of Shakespeare's most important contemporaries. The poetry and prose of Edmund Spenser (1552-99) and Sir Philip Sidney (1554-86) will be studied in relation to their importance to the period's literature, Renaissance English culture, and English literary history.

ENGL. 382-383,482-483 Staff
Guided Independent Study variable credit
A tutorial program open to Junior and Senior students. Content determined by mentor.

ENGL. 395-396 Staff
Travel Seminar: Ireland 3 credits
(Formerly Engl.190) This is an artistic, cultural, literary tour. Students will study the people and places that contribute to Ireland's distinct place in the World of Literary Art. (Intersession or Spring Break)

ENGL. 413 Staff
Scriptwriting 3 credits
(Formerly Engl. 121) Introduction to the film and television format for dramatic productions of varying lengths. Documentaries are also studied. Students not only master technique but also explore development of plot and character. Four major assignments and several short projects are required. Prerequisite: Engl. 110 or equivalent. (GE Area III or IV)

ENGL. 414 Staff
Play Writing 3 credits
(Formerly Engl. 122) Course is designed to teach student craft and technique of writing a play. The students will explore their own abilities through play writing and will be responsible for writing a full one act play or one act of a two or three act play. (GE Area III or IV)

ENGL. 419 Staff
Modern Novel 3 credits
(Formerly Engl. 153) The evolution of the novel from modern to postmodern times. Major American and English writers are studied, moving from traditional narrative to self-conscious stylistic devices.

ENGL. 420 Dr. Fraustino
Comparative Romanticism 3 credits
Major British and American Romantic writers will be studied in an effort to distinguish the forms Romanticism takes in the two countries and to determine possible relationships. Authors to be examined include Blake, Wordsworth, Coleridge, Shelley, Keats, Hawthorne, Poe, Emerson and Whitman.

ENGL. 421 Dr. Fraustino
Literature of the Absurd 3 credits
(Formerly Engl. 188) Focusing on literature from 1850 to the present, this course will examine works of fiction, drama, and to some extent poetry that reflect a general 19th and 20th century western sense of disintegrating values and lost religious beliefs. Readings will include works by Edgar Allan Poe, Lord Byron, Thomas Hardy, Robert Louis Stevenson, Joseph Conrad, Tennessee Williams, Ernest Hemingway, and Samuel Beckett.

ENGL. 422 Dr. Whittaker
Humor in American Literature 3 credits
(Formerly Engl. 182) This course examines the American experience and character via our unique sources of humor and their manifestation in our literature. We will review native "down East" and old Southwest humor and the local colorists, mainstream humorists such as Washington Irving, Mark Twain, Dorothy Parker, James Thurber, and E.B. White, as well as comic playwrights such as Philip Barry, Kaufman and Hart, and Clare Booth Luce.

ENGL. 424 Fr. Joseph Quinn
American Realists 3 credits
(Formerly Engl. 159) Study of representative figures in the post Civil War period, the period of the rise of American realism. Authors treated will be Mark Twain, Henry James, Stephen Crane and selected modern authors.

ENGL. 425 Dr. Gougeon
Major Works: American Realists 3 credits
(Formerly Engl. 167) Twain's *Huckleberry Finn*, Howell's *The Rise of Silas Lapham*, James' *The American*, Crane's *The Red Badge of Courage*, Dreiser's *Sister Carrie*, and others. Works are evaluated in their historical milieu and the development of American Realism, 1865-1900.

ENGL. 426 Fr. J.J. Quinn
Modern American Short Story 3 credits
(Formerly Engl. 147) An intensive study of representative modern American Masters of the short story form. The film version of many stories studied allows an enriching comparative experience.

ENGL. 427 Staff
American Drama: 1919-1939 3 credits
(Formerly Engl. 168) A review of the first "golden age" of American drama, which includes biting masterpieces such as *The Hairy Ape, Awake and Sing*, and comic works such as *You Can't Take It With You* and *The Time of Your Life.*

ENGL. 431 Dr. Beal
Dante's Divine Comedy 3 credits
(Formerly Engl. 144) A canto by canto study, in translation, of Dante's dream vision of hell, purgatory, and heaven. Consideration given to the cultural milieu and to medieval art and thought as these affect the allegorical meaning and structure of the poem.

ENGL. 432 Dr. Beal
Chaucer 3 credits
(Formerly Engl. 130) A study of Chaucer's poetry in the context of medieval culture. Readings and assignments will concentrate on *The Canterbury Tales*, but will also cover the other major poems, such as the *Book of Duchess* and the *Parliament of Birds.*

ENGL. 434 Dr. Fraustino
Keats: Death and Love 3 credits
(Formerly Engl. 136) Course will focus almost exclusively on one writer, John Keats, and explore the dynamic relationship in his poetry between death and love.

ENGL. 436 Fr. J.J. Quinn
Poetry of G.M. Hopkins, S.J. 3 credits
(Formerly Engl. 139; prerequisite: Engl. 140 or Engl. 103) Gerard Manley Hopkins, the only priest-poet in history to be honored with a place in Westminster Abbey's Poets' Corner, will be studied in his poetry and Jesuit background as a Nature, Victorian, Religious, Original, Theological, Meditative, and the first Modern, Poet.

ENGL. 437 Prof. Hill
Conrad's Fiction 3 credits
(Formerly Engl. 140) A reading of major works by Conrad and survey of critical response to this quintessential modern Western writer.

ENGL. 438 Dr. Whittaker
Joyce 3 credits
(Formerly Engl. 145) This course explores the prose works of James Joyce, one of the lights of Anglo-Irish writing, and a major figure in twentieth century literature. We will read and discuss *Dubliners, A Portrait of the Artist as a Young Man*, and, with the help of various guides, the masterpiece, *Ulysses.* We will work to apprehend in Joyce both the universal and the peculiarly Irish.

ENGL. 439 Fr. J.J. Quinn
Flannery O'Connor 3 credits
(Formerly Engl. 141) A critical study of the short stories and novels of this modern American Christian writer.

ENGL. 444 Drs. Whittaker & Gougeon
American Literature, 1865-Present 3 credits
(Formerly Engl. 106) Study of a select group of major American authors from the Civil War to the present. Included are Twain, Crane, Fitzgerald, and Vonnegut. The historical and cultural milieu and the development of major American themes and attitudes are reviewed.

ENGL. 460 Dr. Rakauskas
Teaching Modern Grammars 3 credits
(Formerly Engl. 127) This course is designed to provide an understanding of the English language and its grammar, based upon recent linguistic analysis of the language, and to assist the future teacher in his understanding of transformational/generative grammar and its place in the curriculum. Techniques for teaching these new grammars, and laboratory teaching experience in the freshman writing clinic will be presented. Students seeking certification as secondary school English teachers should also be advised that the usual teacher of Engl. 460, as well as 310, Dr. Wm. Rakauskas, supervises student teachers for the department. (GE Area III)

ENGL. 464 Staff
Studies in Literary Theory 3 credits
Analysis and study of several current approaches to the study of literature. The course will explore varieties of formalist, new critical, Marxist, feminist, psychoanalytic, structuralistic, reader response, and poststructural methods of approaching literary texts. The goal of our study will be to allow students to understand the biases and assumptions that underlie all critical practice.

ENGL. 480 Staff
Internship variable credit
English majors can receive internship credits for a variety of on-the-job work experiences. Approval must be obtained beforehand from chairperson and dean.

Oscar-winning actress Glenda Jackson, and Rev. J.J. Quinn, S.J., conducting campus seminar on Theatre Arts.

FINE ARTS

PROF. ROGERS, *Chairperson*

The Fine Arts Department offers three minors: Art History, Studio Art, and Music Literature. Each discipline aims to develop a student's creative expression, to prompt his/her aesthetic appreciation and judgment, and to deepen his/her understanding of man's impulse to create with sound and with image.

Courses in Fine Arts satisfy General Education requirements in FOUR ways:
a) studio art courses (all courses designated ART) satisfy requirements in GE AREA III - Communications, and/or in GE AREA IV - Humanities.
b) art history courses (all courses designated ARTH) satisfy requirements in GE AREA IV-Humanities.
c) music courses (all courses designated MUS) satisfy requirements in GE AREA IV - Humanities.
d) any course in the Fine Arts may be used as a free elective.

FINE ARTS MINORS

A minor in **studio art** requires 18 credits, including ARTH 111, 112, ART 114, a choice of either ART 112 or 116, and two additional studio courses.

A minor in **art history** requires 18 credits, including ARTH 111, 112, ART 112, 114. Two additional courses in art history are required, with the stipulation that these be non-contiguous historical periods.

A minor in **music literature** requires 18 credits, including MUS. 111, 112, 235, 236, and two additional music courses numbered 110 or above.

ART

ART 112 Prof. Rogers
Two Dimensional Design 3 credits
(Formerly Art 60) This course is an exploration of visual organization utilizing two dimensional means. Various materials will be used in working with the elements of line, texture, shape, volume, mass, and color.

ART 114 Prof. Rogers
Three Dimensional Design 3 credits
(Formerly Art 62) A foundation course that investigates basic materials and approaches in the creation of three dimensional form. Emphasis is directed towards hands-on involvement with diverse media, techniques, and tools of the sculptor's craft.

ART 116 Prof. Rogers
Basic Drawing 3 credits
(Formerly Art 64) A foundation course designed to develop the student's skills in basic drawing and perception. Various media are employed in exercises involving the use of line and shading, shape and space, design and composition leading to the development of visual expression.

ART 120 Prof. Rogers
Basic Painting Techniques 3 credits
(Formerly Art 150) An introduction to the basic materials and techniques of painting using acrylic polymer paints. The student will develop skills and abilities in the preparation of painting surfaces and execution of unique visual expressions.

ART 220 Prof. Rogers
Intermediate Painting Techniques 3 credits
(Formerly Art 152) The course encourages student involvement with selected painting materials and techniques. A wide range of uses and forms of expression will be investigated. Individual directions and experimentation are encouraged.

ART 230 Prof. Rogers
Relief Printmaking 3 credits
(Formerly Art 130) The course deals with creation of multiple impressions utilizing diverse materials. Prints will be produced using lino, wood, paper and other experimental media. These images will be printed in black and white as well as in color. No prerequisites required, although Basic Drawing (Art 116) or Two Dimensional Design (Art 112) are recommended.

ART 232 Prof. Rogers
Intaglio Printmaking 3 credits
(Formerly Art 132) The course deals with the development of a graphic statement through the techniques of etching and engraving on metal plates. Methods of producing and printing the created image will be emphasized. An edition of prints will be produced by each student. No prerequisites required, although Basic Drawing (Art 116) or Two Dimensional Design (Art 112) are recommended.

ART 320 Prof. Rogers
Advanced Painting Techniques 3 credits
(Formerly Art 154) The course emphasizes the continued growth of an individual approach toward painting. Content, style, and technique will be determined by each student.

ART 326 Staff
Integrating Art in the Elementary Classroom 3 credits
(Formerly Art 135) This course is designed for the student preparing to teach in the elementary school. The student will interact with a variety of media that readily fit into the classroom setting. Various techniques will be discussed in relation to the media and how, when combined, they can be used to teach concepts and ideas which cross the curriculum. This course is not designed to create teachers who specialize in art, but rather, teachers who can enrich their curriculum through the integration of art.

ARTH. 111 Prof. Dunn and Prof. Jones
History of World Art I 3 credits
(Formerly Art 21) The course focuses on the history of painting, sculpture, and architecture of the ancient world, from prehistoric times through the dawn of the Renaissance in 1400. The art of ancient Mesopotamia, Egypt, Greece, Rome, Byzantium, and the Middle Ages is studied in historical contexts of idea, style, and technique.

ARTH. 112 Prof. Dunn and Prof. Jones
History of World Art II 3 credits
(Formerly Art 22) The course opens with the history of painting, sculpture, and architecture in Renaissance, Baroque, and eighteenth-century Europe. Introduced by Impressionism, Expressionism, and Cubism, the art of the modern world concludes with a survey of idea, style, and technique in twentieth-century art.

ARTH. 113-114 Prof. Jones
History of American Art 6 credits
(Formerly Art 111-112) A survey of architecture, sculpture, and painting in America from the 17th century to the present day. First semester covers from earliest exploration days, the Indians' arts, and the colonial period through the Civil War. Second semester will cover the period from 1865 through contemporary trends including photography, graphic, and decorative arts.

ARTH. 201 Prof. Dunn
Art of the Ancient World 3 credits
(Formerly Art 103) A survey of the art and architecture produced by early man, 30,000 - 1,250 B.C., the course opens in the painted caves of Prehistoric Europe; continues through the contemporaneous civilizations of the Ancient Near East (Sumer, Babylon, Assyrian, Persia) and Egypt.

ARTH. 202 Prof. Dunn
Art of Greece and Rome 3 credits
(Formerly Art 104) The course begins in the Aegean with the Minoan and Mycenaean cultures celebrated by Homer, surveys the art of classical Greece, and continues with the art of the Etruscans in ancient Italy. Roman capture of Etruria introduces a new and powerful culture to the Italian peninsula. The course subsequently focuses on Roman art and architecture (3rd c. B.C. -5th c. A.D.), moving from the paintings of ancient Pompeii to the art sponsored by the first Christian emperor, Constantine.

ARTH. 203 Prof. Dunn
Early Christian and Byzantine Art 3 credits
(Formerly Art 105) The art and architecture produced by the first Christians borrowed much from the forms and ideas of ancient Roman art. The course will survey art produced in Rome, Ravenna, Milan, Greece, and Constantinople, 200-1100 A.D. Emphasis will be placed on the origin and symbolism of Christian imagery and architecture.

ARTH. 204 Prof. Dunn
Medieval Art: Romanesque and Gothic 3 credits
(Formerly Art 106) The cathedrals of medieval Europe (1100-1400), their sculpture-rich exteriors and their interiors, illuminated by stained glass, will be studied in this course. Medieval manuscripts, paintings, and decorative arts along with churches in England, France, Germany and Spain will be presented as mirrors of medieval thought and spirituality.

ARTH. 295-296 Staff
(Travel Seminar)
Short study trips are planned to provide students with the opportunity to study works of painting, architecture, and sculpture on site. Trips will be designed as themes: i.e, the Art Museums of London and Paris, The Bible in Text and Image (Italy), Renaissance villas and palaces, Michelangelo.

ARTH. 303 Prof. Dunn
Art of Baroque and Rococo Europe 3 credits
(Formerly Art 108) A survey of the painting, sculpture, and architecture produced in Europe between 1600 and 1750. The course opens in Bernini's Rome of the Counter-Reformation and concludes in France at the royal courts of Louis XIV and XV.

ARTH. 304 Prof. Dunn
Nineteenth-century Art 3 credits
(Formerly Art 115) The course opens in eighteenth-century Europe and surveys the history of painting, sculpture, and architecture produced during the Romantic and Neoclassical period (J.-L. David, Ingres, Delacroix). It concludes in the nineteenth century as Courbet, Manet, Monet and Renoir challenge accepted rules of painting and inaugurate the modern era in styles dubbed Realism and Impressionism. Symbolist and Pre-Raphaelite painters are introduced as alternative currents of nineteenth-century idea and style.

ARTH. 305 Prof. Dunn
Art of the Twentieth Century: 3 credits
1900 to present (Formerly Art 116) This course opens in pre-World War I Europe with the early work of Picasso and Matisse, and continues with Expressionism and Surrealism as artistic responses to the war-torn world of human experience. Art produced between 1950 and 1980 will be surveyed as documents of modern man's thought and experience.

ARTH. 310 Prof. Dunn
Renaissance Art and Architecture: 1250-1500 3 credits
(Formerly Art 107) A survey of the art produced in Italy, 1250-1500, the course opens with the work of Cimabue in Assisi of St. Francis; continues into the fourteenth century with the frescoes of Giotto and his followers, and with the painters of Duccio's Siena; and concludes with such fifteenth-century artists as Brunelleschi, Donatello, Botticelli, Leonardo da Vinci, and the young Michelangelo.

ARTH. 311 Prof. Dunn
The Renaissance in Northern Europe 3 credits
(Formerly Art 118) Art produced in northern Europe (France, Germany, Belgium, and the Netherlands) differs remarkably from the art produced in Italy by Botticelli and Michelangelo. This course surveys painting north of the Alps by such artists as Jan van Eyck, Rogier van der Weyden, Hieronymus Bosch, and Albrecht Durer.

ARTH. 312 Prof. Dunn
Impressionism and Post-Impressionism 3 credits
(Formerly Art 120) The movement derogatorily dubbed as Impressionism exerted a lasting impact on the history of art by breaking with the rules of art practiced in Europe prior to 1860. This course surveys the movement epitomized by Monet, Renoir, Morisot, and Degas. It concludes with the movement which fathered Impressionism: Post-Impressionism. Paintings by Van Gogh, Bernard, and Gauguin will be studied as reaction and response to the aims of Impressionism.

ARTH. 382-383 Staff
Guided Independent Study in Art 3 credits
(Formerly Art 191-195) Courses are intended to meet specific needs. Content and methodology vary.

ARTH. 384, 484 Prof. Dunn/Staff
Special Topics 3 credits
(Formerly Art 170) Selected topics in art history will vary from year to year based on student/faculty interest and available media resources. Topics may include Art of the Far East, History of Printmaking, Women in Art, or History of Photography. Discrete styles and individual artists may also be the focus of a selected topics course.

ARTH. 410 Prof. Dunn
Michelangelo and His World: 1450-1574 3 credits
(Formerly Art 122) This course spotlights the painting, sculpture, and architecture of Michelangelo. By considering the artistic traditions to which he fell heir as a Florentine artist, the traditional and the innovative aspects of Michelangelo's work will be assessed. Readings from his letters and poetry, and from sixteenth-century biographies of him will furnish a rich context for the appreciation of his work and for understanding the world to which he belonged.

FINE ARTS 100 Prof. Rogers and
Creativity in the Fine Arts Dr. Wolterink
3 credits
(Formerly Fine Arts 10) An examination of the creative process in music and the visual arts. Material will be drawn from a variety of historical periods with an emphasis on development since 1945.

MUSIC

MUS. 100 Staff
Understanding Music 3 credits
(Formerly Mus. 10) An examination of music representing a wide variety of styles, genres, historical periods, and geographical areas, with an emphasis on the development of perceptive listening skills. Folk, popular, rock, jazz, and classical music will be considered.

MUS. 111 Sr. Roccasalvo, C.S.J., and
Music History I Dr. Wolterink
3 credits
(Formerly Mus. 21) The history and literature of Western classical music from the medieval period to the eighteenth century, including Gregorian chant, the growth of polyphony, the rise of instrumental music and the birth and growth of opera.

MUS. 112 Sr. Roccasalvo, C.S.J., and
Music History II Dr. Wolterink
3 credits
(Formerly Mus. 22) The history and literature of Western classical music from the eighteenth century to the present, including the increasing importance of instrumental music and opera, the development of atonality and serial music, and the recent avant-garde. May be taken without having taken Music 111.

MUS. 115 Sr. Roccasalvo, C.S.J.
From Bach to Rock 3 credits
(Formerly Mus. 114) The music of Western civilization from J.S. Bach and G.F. Handel to recent developments of the 20th century. Special attention to Haydn, Mozart and Beethoven.

MUS. 118 Dr. Wolterink
Music of the Twentieth Century 3 credits
A study of the history and literature of Western classical music in the twentieth century. The various "isms" of the period, including impressionism, expressionism, neo-classicism, serialism and minimalism, will be examined. It is recommended that the student should have taken Music 112 previously.

MUS. 123 Sr. Roccasalvo, C.S.J.
Music in Russia 3 credits
(Formerly Mus. 103) A survey of the music of the Rus' people--Southwestern Rus' and Great Russia. Choral and instrumental music from the 10th century to the present day. Western influences on Great Russia. Special focus on the "Mighty-Five," Tchaikovsky, Rachmaninoff, Stravinsky.

MUS 125 Sr. Roccasalvo, C.S.J.
Music in Italy 3 credits
(Formerly Mus. 120) A survey of music as it developed in Italy from the Renaissance to the present day. Focus on a) the centers of musical activity, i.e., Florence, Venice, Rome, Bologna and b) vocal and instrumental genres, especially the string repertoire and families who made string instruments, i.e., Amati, Guarneri, Stradivari.

MUS. 128 Dr. Wolterink
Music in America 3 credits
(Formerly Mus. 123) An overview of the development of music in the United States from colonial times to the present, with an emphasis on the twentieth century. Classical, popular, and traditional musical styles will be considered, including the symphony, the opera, the Broadway show, jazz, rock, hymnody, and folk music.

MUS. 211 Prof. Garofalo
Keyboard Music 3 credits
(Formerly Mus. 109) The music written for the piano, organ, harpsichord and clavichord from the Renaissance to the 20th Century. The course focuses on the development of keyboard instruments and the forms and composers that dominate the literature.

MUS. 213 Dr. Wolterink
Symphony 3 credits
(Formerly Mus. 105) Development of the symphony as an independent genre, from its origins in the mid-eighteenth century to the present day. Works by Haydn, Mozart, Beethoven, Brahms, Tchaikovsky, Mahler, Shostakovich and Stravinsky will be among those considered.

MUS. 217 Dr. Wolterink
Opera 3 credits
(Formerly Mus. 108) The history of opera from its beginnings at the turn of the seventeenth century to the present, with an emphasis on the nineteenth and twentieth centuries. Representative operas by Mozart, Verdi, Wagner and Puccini, among others, will be examined.

MUS. 218 Dr. Wolterink
American Musical Theater 3 credits
(Formerly Mus. 116) The development of musical theater in America from the nineteenth century to the present, with an emphasis on works composed in the last forty years. Musicals by Jerome Kern, Rodgers and Hammerstein, Lerner and Loewe, Leonard Bernstein and Stephen Sondheim will be among those considered.

MUS. 223 Dr. Wolterink
Bach 3 credits
(Formerly Mus. 111) The music of Johann Sebastian Bach in the context of the musical forms, styles, and genres current in the first half of the eighteenth century. A brief survey of Bach's life and works will be followed by more detailed study of selected vocal and instrumental compositions.

MUS. 224 Staff
Mozart 3 credits
(Formerly Mus. 113) An examination of Mozart's major works in the genres of the symphony, the concerto, chamber music, church music and opera, together with a brief biographical survey. The influence of late eighteenth century culture and musical conventions on Mozart's work will be considered.

MUS. 225 Sr. Roccasalvo, C.S.J.
Beethoven 3 credits
(Formerly Mus. 115) Study of a composer whose fiery personality drove him to express through music universal concepts in an age of revolution, i.e., freedom and the dignity of the person. Course traces the evolution of Beethoven's major works — sonatas and concertos, symphonies and string quartets as well as Fidelio and the Missa Solemnis. The effect of his deafness on his view of life and on his later works.

MUS. 235 Dr. Wolterink
Music Theory I 3 credits
(Formerly Mus. 185) The fundamental materials of tonal music: notes and rests, rhythm and meter, scales and modes, intervals, triads and seventh chords, melodic and harmonic organization and an introduction to voice leading and part writing. Some knowledge of music notation helpful.

MUS. 236 Dr. Wolterink
Music Theory II 3 credits
(Formerly Mus. 186; prerequisite: Mus. 235) Extension of the tonal vocabulary to include chromatic harmony, modulatory techniques, and the use of extended chords, as well as an overview of selected post-tonal procedures.

MUS. 280 Staff
Liturgical Music 3 credits
(Formerly Mus. 117) The role of music in the Roman Catholic Church tradition. Emphasis will be toward the practical rather than historical. Recommended for any person, layperson or clergy, involved in developing church liturgy. No musical background required.

MUS. 335 Dr. Wolterink
Introduction to Composition 3 credits
(Prerequisites: Mus. 235 and 236) Guided individual projects in original composition, together with the analysis of selected works from the classical repertory.

MUS. 382-383 Staff
Guided Independent Study in Music 3 credits
(Formerly Mus. 191-195) Courses are intended to meet specific needs. Content and methodology vary.

FOREIGN LANGUAGES AND LITERATURES

DR. PARSONS, *Chairperson*

The program of the Foreign Language Department is designed to enable the student to read, write, speak and comprehend one or more foreign languages; to think and express him/herself logically, precisely and critically in one or more foreign languages; to acquire skills in literary criticism by reading representative foreign authors; to gain insight into the evolution of the culture and civilization of foreign peoples as reflected in their literature.

The Bachelor of Arts program in Classical Language gives the student a solid foundation in Latin and Greek to engender an appreciation of the liberal aspects of Classical Studies. Classics majors are encouraged to take their junior year abroad at Loyola University's Rome Center of Liberal Arts with which the University of Scranton is affiliated.

A major in a foreign language requires the completion of 36 credits in one language beginning with the intermediate level if it is modern, and the elementary level if it is classical. Modern language majors normally take at least 12 credits in a second language, either modern or classical, as their cognate. A double major may be pursued by taking 36 credits in one language beginning with the intermediate or elementary level, and by satisfying the major and cognate requirements of another department. The placement of students at a particular foreign language level is the responsibility of the chairperson.

As indicated on p. 88, language students interested in careers in industry can pursue an alternative major incorporating courses in business.

MODERN LANGUAGES

FRENCH

FRENCH 101-102
Elementary French 6 credits
(Formerly Fren. 1-2) Designed to impart a good basic foundation in comprehending, speaking, reading, and writing of the French language. Designed primarily for students with no or insufficient background in the French language. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

FRENCH 211-212
Intermediate French 6 credits
(Formerly Fren. 23-24; prerequisites: French 101-102, or equivalent) Designed to give greater scope and depth to the student's knowledge of the grammar and style of the French language, with readings of original works selected from French literature. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

FRENCH 305 Dr. Petrovic
French Masterpieces in Translation 3 credits
(Formerly Fren. 105) The study of selected major works from the leading French writers that have made an important contribution to the development of Western civilization. Such authors as Camus, Flaubert, Baudelaire, Gide, Proust, Malraux and Strendhal will be discussed.

FRENCH 311-312
Advanced French Composition 6 credits
(Formerly Fren. 101-102; prerequisites: French 211-212, or equivalent) An intensive course in French composition and conversation with emphasis on detailed study of advanced grammatical and stylistic usage of the French language. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

FRENCH 313-314
Survey of French Literature 6 credits
(Formerly Fren. 111-112; prerequisites: French 311-312, or equivalent) A review of French literature from the chanson de geste to the contemporary period. Meets three hours a week or equivalent.

FRENCH 315-316
Survey of French Culture and Civilization 6 credits
(Formerly Fren. 113-114; prerequisites: French 311-312, or equivalent) A review of the historical, philosophical, artistic, literary, and scientific development of the French people from the Roman occupation to the present. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

FRENCH 319
Business French 3 credits
(Formerly Fren. 183; prerequisites: French 311-312, or equivalent) Overview of the spoken and written language of the French business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance, and international commerce within a contemporary cultural setting. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

FRENCH 321-322
Advanced French Stylistics 6 credits
(Formerly Fren. 181-182; prerequisites: French 311-312, or equivalent) Designed to strengthen the speaking and writing skills while emphasizing the production of speech sounds and their transcription by the International Phonetic Alphabet. Exercises in enunciation and phraseology, besides a refined usage of grammar and syntax. Meets three hours a week or equivalent, and one hour weekly independent language laboratory practice.

FRENCH 421
Medieval and Renaissance French Studies 3 credits
(Formerly Fren. 131; prerequisites: French 311-312, or equivalent) Selected literary works from the eleventh century to the late Renaissance. Meets three hours a week, or equivalent.

FOREIGN LANGUAGE

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	Language	Intermediate or Advanced Language	3	3
COGNATE	Lang,. 101-102 or 211-212	Second Modern or Classical Language	3	3
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA III	Communications	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Lang. 311-312	Advanced Composition Conversation	3	3
COGNATE	Lang. 211-212 or 311-312	Second Modern or Classical Language	3	3
COGNATE	Lang. 317-Elec.	Introduction to Linguistics* -Elec.	3	3
GE AREA II	Social/Behavior	Electives	3	3
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122	Theology II	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Language	Advanced Language Elective	6	6
COGNATE	Elective	Elective	3	
GE AREA II	Social/Behavior	Electives	3	3
GE AREA III	Communications	Elective	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil.-T/RS	Philosophy or Religious Studies Elective		3
GE FREE	Elective	Elective		3
			15	18
		SENIOR		
MAJOR	Language	Advanced Language Elective	6	6
COGNATE	Elective	Elective	3	
GE AREA I	Nat. Sci./Quant.	Elective	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil.-T/RS	Philosophy or Religious Studies Elective		3
GE FREE	Electives	Electives	3	3
			15	15

TOTAL: 127 credits

* Required for modern language majors seeking certification in secondary education; recommended for Modern Language majors. Language 315 may be substituted.

In AREA III, English 110 and Comm. 100 are recommended during freshman year. In AREA IV, (Hist. 212, 234-235, 325, 329, or 330 are recommended for modern language majors.)

Students who begin language at the Advanced (311) level will take 6 credits less in the major and 6 credits more in the Cognate or FREE AREA in either Junior or Senior year.

MINOR. A minor in a foreign language, open to students in all disciplines, can be achieved by the completion of 18 credits beginning at the intermediate level if the language is modern, and at the elementary level if it is classical. Students who minor in two languages must complete a total of 24 credits distributed equally among the two languages.

Elementary courses in any language are not open to students who have studied two or more years of the same language in high school; exceptions to this policy must be approved by the Language department.

INTERNATIONAL LANGUAGE-BUSINESS

The major in International Language-Business is a professionally oriented program. Its purpose is to make language study a more career-structured discipline by providing students with the opportunity to acquire a liberal education while, at the same time, taking courses specifically relevant to the business enterprise.

In order to bridge the communication gap between multinational business and the lack of functional language skills often exhibited by the personnel representing them, specialized language courses focusing on the business terminology and cultural setting of the countries in question complement the regular language and business courses in this major.

The department strongly recommends that students study abroad during their junior year. Students who take advantage of the option to study abroad have the opportunity to pursue a business internship to gain practical experience in their language specialty. Academic credit earned during an internship will be in addition to the 130 credits stipulated for the program, unless there is room in the Free Area for the internship credits.

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN	FALL	SPRING
MAJOR	Language	Intermediate or Advanced Modern Language†	3	3
COGNATE	Lang. 101-102 or 211-212	Second Language	3	3
GE AREA I	Nat. Sci./Quant.	Electives*	3	3
GE AREA III	Communications	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
		SOPHOMORE	16	16
MAJOR	Lang. 311-312	Advanced Composition and Conversation	3	3
COGNATE	Lang. 211-212 or 311-312	Second Language	3	3
MAJOR	Acc. 253-254	Financial-Managerial Accounting	3	3
GE AREA II	Eco. 151-152	Principles of Economics I-II	3	3
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122	Theology II	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
		JUNIOR	16	16
MAJOR	Lang. 321-322	Advanced Stylistics	3	3
MAJOR	Language	Advanced Language Electives	3	3
MAJOR	Mgt. 351	Organization and Management	3	
MAJOR	Eco. 351	Environment of International Business		3
GE AREA II	Social/Behavior	Electives**	3	3
GE AREA III	Cmps. 104	Introduction to Computer Science	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil.-T/RS	Phil. or Religious Studies Elective***		3
GE FREE	Elective	Elective	3	
		SENIOR	18	18
MAJOR	Lang. 319	Business Language	3	
MAJOR	Language	Advanced Language Electives	3	6
MAJOR	Mkt. 351	Managerial Marketing	3	
MAJOR	Intnl. Elective	One of Mgt. 475, Mkt. 475, or Eco. 475		3
GE AREA I	Nat. Sci./Quant.	Elective	3	
GE AREA IV	Humanities	Elective		3
GE AREA V	Phil.-T/RS	Phil. or Religious Studies Elective		3
GE FREE	Elective	Elective****	3	
			15	15
			TOTAL: 130 credits	

* Recommend Math 106-107 Quantitative Methods I-II

** Recommend Pol. Sci. 212 International Relations as one of these.

*** Recommend Phil. 211 Business Ethics

**** Recommend Pol. Sci. 240 Political Science Statistics I

† Students who begin language at the Advanced (101) level will take 6 credits less in the major and 6 credits more in the Cognate or FREE Area in either Junior or Senior year.

FRENCH 423
XVIIth Century French Studies 3 credits
(Formerly Fren. 141; prerequisites: French 311-312, or equivalent) Literary, philosophical, and social expression from 1610 to 1715. Meets three hours a week, or equivalent.

FRENCH 425
XVIIIth Century French Studies 3 credits
(Formerly Fren. 151; prerequisites: French 311-312, or equivalent) The Enlightenment from 1715 to 1789. Meets three hours a week, or equivalent.

FRENCH 427
XIXth Century French Novel 3 credits
(Formerly Fren. 161; prerequisites: French 311-312, or equivalent) The development of prose narration as reflected in the literary movements of the age. Meets three hours a week, or equivalent.

FRENCH 429
XIXth Century French Poetry 3 credits
(Formerly Fren. 162; prerequisites: French 311-312, or equivalent) The development of poetic forms from the romantic to the symbolist movement inclusively. Meets three hours a week, or equivalent.

FRENCH 430
French Women Writers 3 credits
Women's view of themselves and the world as reflected in their literary creations. Meets three hours a week, or equivalent.

FRENCH 431
XXth Century French Novel 3 credits
(Formerly Fren. 171; prerequisites: French 311-312, or equivalent) The development of prose narration from the Dreyfus case to the present. Meets three hours a week, or equivalent.

FRENCH 432
French Short Story 3 credits
Principal practitioners of the short story in France, including contemporary authors. Meets three hours a week, or equivalent.

FRENCH 433
XXth Century French Drama 3 credits
(Formerly Fren. 173; prerequisites: French 311-312, or equivalent) The development of dramatic forms from the Theatre Libre to the present. Meets three hours a week, or equivalent.

FRENCH 482-483
Guided Independent Study variable credit
(Formerly Fren. 191-192; prerequisites: French 311-312, or equivalent) A tutorial program open to junior and senior only. Content determined by mentor.

GERMAN

GERMAN 101-102
Elementary German 6 credits
(Formerly Germ. 1-2; prerequisite: none) A complete course in the fundamentals of the German language. Emphasis on reading of graded texts, with written, oral and aural exercises. Designed for student with no or insufficient background in the German language. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

GERMAN 211-212
Intermediate German 6 credits
(Formerly Germ. 23-24; prerequisites: German 101-102 or equivalent) Reading from modern authors of moderate difficulty. Oral and written exercise. Systematic review of German grammar. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

GERMAN 213-214
Introduction to Business German 6 credits
(Formerly Germ. 25-26; prerequisites: German 101-102, or equivalent) Specialized intermediate-level course for students who wish to focus their skills on the language of the business world. Oral and written exercises. Systematic review of German grammar. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

GERMAN 311-312
Advanced German Conversation and Composition 6 credits
(Formerly Germ. 101-102; prerequisites: German 211-212, or equivalent) Selected texts in prose and poetry. Advanced practice in conversation and composition. Survey of German grammar. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

GERMAN 313-314
Study of German Literature and Culture 6 credits
(Formerly Germ. 111-112; prerequisites: German 311-312, or equivalent) A survey of German literature from the eleventh century to the contemporary period, with special emphasis on the main intellectual currents as well as the social and political developments. Meets three hours a week, or equivalent.

GERMAN 319
Business German 3 credits
(Formerly Germ. 183; prerequisites: German 311-312, or equivalent) Overview of the spoken and written language of the German business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance, and international commerce within a contemporary cultural setting. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

GERMAN 321-322
Advanced Stylistics 6 credits
(Formerly Germ. 181-182; prerequisites: German 311-312, or equivalent) Advanced study of syntax and semantics aimed at the development of stylistic sensitivity. Interdisciplinary textual analyses (business and commercial German, communications media, the sciences and humanities) for further practice in composition and conversation. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

GERMAN 421
German Classicism and Romanticism 3 credits
(Formerly Germ. 161; prerequisites: German 311-312, or equivalent) A study of the literature of the 18th (Goethe, Schiller, Holderlin) and early 19th century (Kleist, Hoffmann, Novalis) in their Classical and Romantic contexts. Meets three hours a week, or equivalent.

GERMAN 423
Realism and Naturalism 3 credits
(Formerly Germ. 162; prerequisites: German 311-312, or equivalent) A study of the works of late 19th century authors, such as Storm, Fontane, and Keller. Meets three hours a week, or equivalent.

GERMAN 425
German Literature up to 1945 3 credits
(Formerly Germ. 171; prerequisites: German 311-312, or equivalent) An in-depth study of such authors as Brecht, Mann, Kafka, and Rilke. Meets three hours a week, or equivalent.

GERMAN 427
Postwar German Literature 3 credits
(Formerly Germ. 172; prerequisites: German 311-312, or equivalent) Concentration on contemporary authors such as Frisch, Durrenmatt, Grass and Boll, as well as representative authors from East Germany. Meets three hours a week or equivalent.

GERMAN 482-483
Independent Study Variable Credit
(Formerly Germ. 191-192; prerequisites: German 311-312, or equivalent) A tutorial program open to junior and senior students only. Content determined by mentor.

ITALIAN

ITALIAN 101-102
Elementary Italian 6 credits
(Formerly Ital. 1-2) Introduction to the Italian language. Designed for beginners. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

ITALIAN 211-212
Intermediate Italian 6 credits
(Formerly Ital. 23-24; prerequisites: Italian 101-102, or equivalent) Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

JAPANESE

JAPANESE 101-102
Elementary Japanese 6 credits
(Formerly Jap. 1-2) Development of the fundamental skills, listening, speaking, reading and writing, with emphasis on language performance. Emphasis on practical application of the basic skills for business related activities. Relevant cultural aspects are introduced. Designed primarily for students with no background in the Japanese language.

PORTUGUESE

PORTUGUESE 101-102
Elementary Portuguese 6 credits
(Formerly Port. 1-2) Introduction to the Portuguese language. Designed for beginners. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

RUSSIAN

RUS 101-102 Prof. Peregrim
Elementary Russian 6 credits
(Formerly Rus. 1-2) Primary emphasis on developing the skills of understanding, speaking, reading and writing of Great Russian. A new modern concept entitled "Total Physical Response" used to expand aural comprehension. A thorough and continual study of the Cyrillic alphabet is an integral part of the course's content. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

RUS 211-212 Prof. Peregrim
Intermediate Russian 6 credits
(Formerly Rus. Prerequisites: Rus. 101-102 or equivalent) This course continues development of the four major skills: listening, speaking, reading, and writing. It builds on the grammatical concepts learned in Russian 101 and 102 and provides a solid foundation for the student interested in visiting the Soviet Union and/or in reading the Russian Classics, contemporary literature, and newspapers. Grammar is taught functionally. Writing, both structured and unstructured, is emphasized. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SLAVIC

SLAV 207 Dr. Petrovic
Masterworks of Russian & Slav Literature 3 credits
(Formerly Slav. 107) A survey of major literary achievements of Slavic peoples. Dostoyevsky, Tolstoy, Cosic, Sienkiewicz and Solzhenitsyn will be read. No knowledge of Slavic languages is required. All readings and lectures are in English (GE AREA IV)

SPANISH

SPANISH 101-102
Elementary Spanish 6 credits
(Formerly Span. 1-2; prerequisite: None) Fundamentals of grammar, pronunciation, conversation, suitable readings and written exercises. Designed primarily for students with no or insufficient background in the Spanish language. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 211-212
Intermediate Spanish 6 credits
(Formerly Span. 23-24; prerequisites: Spanish 101-102, or equivalent) Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 310
Medical Spanish 3 credits
(Formerly Span. 100; prerequisites: Spanish 211-212, or equivalent) Designed for the student who plans to work in any area of health care, this course focuses on the needs and problems of Spanish-speaking patients. Students learn specialized vocabulary and improved communicative ability through conversation and composition. Through films and on-site hospital visits, students develop an increased awareness of health issues often of particular concern to Hispanics. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 311-312
Advanced Composition and Conversation 6 credits
(Formerly Span. 101-102; prerequisites: Spanish 211-212, or equivalent) A thorough study of Spanish grammar, composition, oral and written, with the aim of developing ability to write clear and fluent Spanish. Practice in oral composition. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 313
Spanish Culture and Civilization 3 credits
(Formerly Span. 111; prerequisites: Spanish 311-312, or equivalent) An overview of the diverse historical, political, religious, and artistic factors that have determined the cultural make-up of the peoples of the Iberian peninsula. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 314
Topics in Latin-America Culture and Civilization 3 credits
(Formerly Span. 112; prerequisites: Spanish 311-312, or equivalent) The course examines the unique cultural and historical features of one specific region (the Andean countries, the Caribbean, Central America, Mexico, and the Southern Cone) and focuses, as well, on the cultural, linguistic, and religious traits shared with the other areas. Content will vary according to the cultural/geographic region examined, and course therefore may be repeated for credit. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 315-316
History of Spanish Literature 6 credits
(Formerly Span. 115-116; prerequisite: Spanish 320) Study of Spanish literature from Cantar de Mio Cid to XXth century, with emphasis on main literary currents in each century. Meets three hours a week, or equivalent.

SPANISH 317-318
Survey of Spanish-American Literature 6 credits
(Formerly Span. 117-118; prerequisite: Spanish 320) A survey of Spanish-American literature from the 16th century to the present, with representative readings from each of the principal cultural areas. Meets three hours a week, or equivalent.

SPANISH 319
Business Spanish 3 credits
(Formerly Span. 183; prerequisites: Spanish 311-312, or equivalent) Overview of the spoken and written language of the Spanish business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance, and international commerce within a contemporary cultural setting. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 320
Introduction to Literature 3 credits
(Formerly Span. 110; prerequisites: Spanish 311-312, or equivalent) An introduction to the principal genres of literature (poetry, short story, essay, drama and novel) through analysis of representative works in the Hispanic tradition. Required for all upper-division literature courses.

SPANISH 321-322
Advanced Stylistics 6 credits
(Formerly Span. 181-182; prerequisites: Spanish 311-312, or equivalent) Designed to achieve more sophisticated use of Spanish, both verbally and in writing. Includes intensive examination of compositions and translation exercises, as well as discussion of areas of particular difficulty for the non-native speaker (e.g. false cognates and unfamiliar structures.) Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 323
Contemporary Issues 3 credits
(Formerly Span. 125; prerequisites: Spanish 311-312 or equivalent) A conversation-intensive course. Discussion and reports based on readings in a broad range of current periodicals and focusing on issues of relevance to the Hispanic world and to the particular career or interest areas of students. Meets three hours per week in class, and one hour weekly independent language laboratory practice.

SPANISH 421
XXth Century Spanish Drama 3 credits
(Formerly Span. 121; prerequisite: Spanish 320) Peninsular drama of the XXth century including dramatic forms after Buero Vallejo and new directions of Spanish theater in post-Franco era.

SPANISH 422
Spanish American Drama 3 credits
(Formerly Span. 122; prerequisite: Spanish 320) Spanish American drama from the late XIXth century to the present, with emphasis on contemporary trends. Meets three hours a week, or equivalent.

SPANISH 425
Hispanic Detective Fiction 3 credits
(Formerly Span. 140; prerequisite: Spanish 320) An examination of the two schools of detective fiction (the hard-boiled and the puzzle) in Hispanic literature (short story and novel).

SPANISH 427-428
Modern Spanish Prose 6 credits
(Formerly Span. 161-162; prerequisite: Spanish 320) The short story and the novel in Spain in the late 19th and early 20th centuries. Meets three hours a week, or equivalent.

SPANISH 429-430
The Spanish American Novel 6 credits
(Formerly Span. 163-164; prerequisite: Spanish 320) An examination of the esthetic, cultural and social aspects of prose fiction in Latin America over the past two hundred years. Meets three hours a week, or equivalent.

SPANISH 431
Spanish American Short Story 3 credits
(Formerly Span. 167-168; prerequisite: Spanish 320) The development of the short story as a literary genre in Spanish America from the beginning of the 19th century to the present. Meets three hours a week, or equivalent.

SPANISH 433
Hispanic Lyric Poetry 3 credits
(Formerly Span. 171; prerequisite: Spanish 320) The development of lyric poetry in the Spanish-speaking world. Examples of early poetry in Spain and Spanish America are studied to establish an awareness of the Hispanic lyric tradition, but the main focus of the course is on 20th century Spanish America and such figures as Gabriela Mistral, Pablo Neruda, and Cesar Vallejo.

SPANISH 435
The Literature of Social Protest 3 credits
(Formerly Span. 172; prerequisite: Spanish 320) Serious social and political literature in Spain and Spanish America.

SPANISH 436
The Hispanic Satirical Tradition 3 credits
(Formerly Span. 173; prerequisite: Spanish 320) An examination of satirical writings beginning with Juan Ruiz, Quevedo, and Sor Juana Ines de la Cruz, and continuing through such modern masters as Pio Baroja, Garcia Marquez, and Juan Jose Arreola.

SPANISH 482-483
Guided Independent Study Variable Credit
(Formerly Span. 191-192; prerequisites: Spanish 311-312, or equivalent) A tutorial program open to junior and senior students only. Content determined by mentor.

CLASSICAL LANGUAGES

GREEK

GREEK 111-112
Elementary Greek 6 credits
(Formerly Greek 1-2) An intensive course in the fundamentals of Classical Greek grammar.

GREEK 211-212
Intermediate Greek 6 credits
(Formerly Greek 23-24; prerequisites: Greek 111-112 or equivalent) Review of fundamentals. Readings from Zenophon, Euripides, and the New Testament.

GREEK 311-312
Readings in Greek Literature 3-6 credits
(Formerly Greek 109-110; prerequisites: Greek 211-212 or equivalent) Selections from Greek writers to suit the student's special interest.

GREEK 313
Classical Greek Literature and Mythology 3 credits
(Formerly Greek 111) This course examines the role that mythology played in Greek literature, and examines the changing attitudes of the Greeks towards the Olympian gods from Homer to the 4th century B.C. All readings and lectures in English.

GREEK 320
Ancient Civilization: Greece 3 credits
(Formerly Greek 120) The political, constitutional, and cultural history of Greece from the earliest times to the death of Alexander the Great. All readings and lectures in English.

GREEK 325 Dr. Petrovic
Legacy of Greece and Rome 3 credits
(Formerly Greek 125) Survey of the artistic and cultural treasures of classical Greece and Rome with a focus on their enduring legacy in our own civilization.

GREEK 335
Roots of Greek in English 3 credits
(Formerly Greek 145) The relationship of both Greek and English to the other languages of the Indo-European family; the Greek elements that have come into English are presented: e.g., bases, prefixes, numerals, hybrids, etc. A study of the 20-25% English words which come from Greek, particularly in scientific fields.

GREEK 421
Homer 3 credits
(Formerly Greek 101; prerequisites: Greek 211-212 or equivalent) Selected readings from the Iliad and the Odyssey. An appreciation of the diction, thought and beauty of Homer.

GREEK 422
Thucydides 3 credits
(Formerly Greek 102; prerequisites: Greek 211-212 or equivalent) Evaluation of fifth century Athens and of Thucydides as philosopher and historian. Readings from the History of the Peloponnesian War.

GREEK 423
Plato 3 credits
(Formerly Greek 105; prerequisites: Greek 211-212 or equivalent) Readings of the Apology. A philosophical, historical and literary analysis of Plato and Socrates. Supplementary reading in the Crito and Phaedo.

GREEK 424
Euripides 3 credits
(Formerly Greek 106; prerequis4ites: Greek 211-212 or equivalent) Reading and analysis of the Medea with an evaluation of the art and thought of Euripides.

GREEK 425
Sophocles 3 credits
(Formerly Greek 107; prerequisites: Greek 211-212 or equivalent) Evaluation of Sophocles as a poet, dramatist and thinker through a study of the Oedipus Tyrannus.

GREEK 426
Demosthenes 3 credits
(Formerly Greek 108; prerequisites: Greek 211-212 or equivalent) An analysis of the De Corona as a model of rhetoric. Consideration of the rhetorical norms established by Aristotle.

GREEK 482-483
Guided Independent Study Variable Credit
(Formerly Greek 191-192; prerequisites: Greek 211-212 or equivalent) A tutorial program open to junior and senior students only. Content determined by mentor.

LATIN

LATIN 111-112
Elementary Latin 6 credits
(Formerly Latin 1-2) An intensive course in the fundamentals of Latin. Reading and composition.

LATIN 211-212
Intermediate Latin 6 credits
(Formerly Latin 23-24; prerequisites: Latin 111-112 or equivalent) Review of fundamentals. Reading of selections from Caesar, Cicero and Virgil.

LATIN 311-312
Readings in Latin Literature 3-6 credits
(Formerly 109-110; prerequisites: Latin 211-212 or equivalent) Selections from Latin writers to suit the students' special interests. Topics will vary from year to year; the course may, therefore, be repeated for credit.

LATIN 313
Classical Roman Literature and Mythology 3 credits
(Formerly Latin 111) The course examines the role that mythology played in Roman literature, and examines the changing attitudes of the Romans towards the divinities manifested in literature from Plautus to Apuleius. All readings and lectures in English.

LATIN 314
Medieval Latin 3 credits
(Formerly Latin 112; prerequisites: Latin 111-112 or equivalent) Introduction to medieval Latin. Readings in medieval prose and poetry from the ninth to the fifteenth centuries.

LATIN 315
History of Latin Literature 3 credits
(Formerly Latin 113) A survey of Roman and post-Roman Latin literature. The course is taught in English. No Latin prerequisite.

LATIN 320
Ancient Civilization: Rome 3 credits
(Formerly Latin 120)The political, constitutional, and cultural history of Rome from the earliest times to the end of the Western empire. All readings and lectures in English.

LATIN 335
Roots of Latin in English
(Formerly Latin 145) The relationship of both Latin and English to the other languages of the Indo-European family; the Latin elements that have come into English are presented: bases, prefixes, numerals, hybrids, etc. Approximately 60-65% of English words come from Latin.

LATIN 421
Horace and Juvenal 3 credits
(Formerly Latin 101; prerequisites: Latin 211-212 or equivalent) A study of Roman satire revealing the life, manners and thought of the times.

LATIN 423
Cicero and Lucretius 3 credits
(Formerly Latin 103; prerequisites: Latin 211-212 or equivalent) Selections from the Tusculan Disputations and the De Rerum Natura illustrate constrasting developments in Roman thinking. The course includes a brief survey of ancient philosophy.

LATIN 424
Christian Latin Literature 3 credits
(Formerly Latin 104; prerequisites: Latin 211-212 or equivalent) Selections from Christian Latin writers with concentration on the Confessions of St. Augustine.

LATIN 427
Livy and Virgil 3 credits
(Formerly Latin 107; prerequisites: Latin 211-212 or equivalent) Selections from Livy I and XXI, and from Books VII-XII of Virgil's Aeneid.

LATIN 428
Horace and Catullus 3 credits
(Formerly Latin 108; prerequisites: Latin 211-212 or equivalent) Lyric poetry illustrated by the Odes of Horace and selected poems by Catullus.

LATIN 482-483
Guided Independent Study Variable Credit
(Formerly Latin 191-192; prerequisites: Latin 211-212) A tutorial program open to junior and senior students only. Content determined by mentor.

LINGUISTICS

LANG. 315
World of Language 3 credits
(Formerly Lang. 104; no prerequisite) Designed to provide students with a broad overview of the nature and function of languages. Topics include theories on the origin of languages, evolution and change in language, the importance of language in human society, culture, contemporary politics, and the business world; and identifying successful approaches to language study.

LANG. 317
Introduction to Linguistics 3 credits
(Formerly Lang. 184) Inquiry into the nature of language, its various systems manifested by the principal languages of the world. Principles of structural analysis. Open to language and non-language majors. No prerequisite.

HISTORY

DR. DeMICHELE, *Chairperson*

The department aims: 1. to train the student in solid historical methodology; 2. to present history as the study of interdependent human activities and concrete events which have social significance; 3. to engender an intelligent and critically sympathetic understanding of various civilizations and cultures.

The department offers a special program that enables qualified students to obtain both their Bachelor and Master's degree within four calendar years. The program utilizes Intersession or summer sessions and the use of four graduate courses as part of the undergraduate program. The chairperson of the department should be contacted for details of the program.

See the Pre-Law section earlier in the catalog for details of the department's success in this area.

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN	FALL	SPRING
MAJOR	History 120-121	Europe: 1500 to Present	3	3
MAJOR	History 110-111	United States History	3	3
COGNATE	Electives	Electives*	3	3
GE AREA III	Communications	Electives**	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	History	Electives***	3	3
COGNATE	Electives	Electives*	3	3
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA III	Communications	Elective**	3	
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122	Theology II	3	
GE FREE	Elective	Elective		
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	History	Electives	3	3
COGNATE	Electives	Electives*	3	3
GE AREA I	Nat. Sci./Quant.	Elective	3	
GE AREA II	Social/Behavior	Electives	6	3
GE AREA V	Phil-T/RS	Philosophy and/or Religious Studies	3	3
GE FREE	Elective	Elective		3
			18	15
		SENIOR		
MAJOR	History#	Seminars/Electives	6	6
COGNATE	Electives	Electives*	3	3
GE AREA II	Social/Behavior	Elective	3	
GE AREA IV	Humanities	Electives	3	3
GE FREE	Elective	Elective		3
			15	15
			TOTAL:	127 credits

* Students may use cognate electives to develop a second major

** Unless exempted from the University requirements, students are to take Comm. 100 and Engl. 110.

*** Department recommends History 140, Research Methods, for sophomore History majors; students admitted to 4 year BA/MA Program are required to take History 500, Research Methods. No student should take both Research Methods courses.

Senior History majors are recommended to take Hist. 490 or Hist. 491.

MINOR. A minor in History (18 credits) should include History 110, 111, 120 and 121 plus any two additional history courses.

HIST. 110-111 Staff
History of the United States 6 credits
(Formerly Hist 1-2) The United States from the time of its European beginnings to the present with special emphasis on the history of Pennsylvania; colonial origins to Reconstruction; Gilded Age to the modern era.

HIST. 120-121 Staff
Europe, 1500 to the Present 6 credits
(Formerly Hist 3-4) European history with concentration upon the political aspects of European development. The rise of national monarchies; political, social, economic, and intellectual developments; industrialism, the new nationalism and liberalism.

H/SO 132 Dr. Feller
Introduction to Archaeology 3 credits
(Formerly H/SO 134) An introduction to the study of archaeology from the anthropological and historical perspectives. The problems of survey and site recognition, excavation planning, record keeping, treatment of artifacts, and interpretation will be explored. Problems of above-ground archaeology examined.

HIST. 140 Dr. Homer
Research Methods: 3 credits
The Historian at Work
(Formerly Hist 100) Introduction to the techniques of historical research including the use of library and bibliographical materials, the use and interpretation of evidence, and the preparation of written papers. Course is designed to assist any student, regardless of major, who wishes to improve research and term paper skills.

HIST. 210 Dr. Homer
History as Biography 3 credits
(Formerly Hist 105) An exploration of the nature of biography and its relationship to the study of the past. Biographies of several major figures from the modern era will be read and studied to exemplify different biographical techniques and their utility as means of historical inquiry.

HIST. 212 Dr. DeMichele
Rebels, Robbers, Rogues 3 credits
(Formerly Hist. 119) A sociological and psychohistorical approach to those folk heroes, political "expropriators" and bandits whose spectacular exploits have been romanticized and preserved through the centuries. Figures such as Robin Hood, Cartouche, Pancho Villa, Jesse James, Che Guevara and others will be considered.

HIST. 213 Dr. DeMichele
Great Discoveries 3 credits
(Formerly Hist. 180) Historical analysis and assessment of the great scientific discoveries and technological developments of mankind from the Age of the Renaissance to the Space Age.

H/PS 214 Dr. DeMichele
World Politics 3 credits
(Formerly Hist. 176; See description under Political Science.)

H/PS 215 Dr. Homer
War and Modern Society 3 credits
(Formerly H/PS 148) (See description under Political Science.)

H/PS 216 Dr. Harris
Gender and the Work Force 3 credits
(Formerly H/PS 154; see description under Political Science.)

H/Geog 217 Dr. Conover
Cultural Geography 3 credits
(Formerly H/Geog. 189) Study of the influence of geography on the origin, structure, and spread of culture. Focuses on describing and analyzing the ways language, religion, economy, government and other cultural phenomena vary or remain consistent from place to place.

HIST. 218 Dr. Earl
Total War 3 credits
(Formerly Hist. 185) Examination of the tactics, strategy, and global significance of World War II. The logistics and scope of the conflict. Importance of propaganda, patriotism and the people. Film-seminar approach. Film fee.

H/PS 219 Dr. Feller
Saving America's Past 3 credits
(Formerly Hist 103) Introduction to problems of the changing urban-suburban environment. Using Lackawanna County as a model study region, the issues of urban planning, architectural recycling, historic preservation and citizen awareness will be explored. Walking tours of Scranton and surrounding communities.

HIST. 220 Dr. Feller
American Decorative Arts 3 credits
(Formerly Hist 104) Introduction to the sources of American decorative and folk arts and interior architecture from the Boston Tea Party to the Philadelphia Centennial Exhibition. The arts themselves and evolution and development of American tastes will be examined as primary source material for the cultural historian, reflective of contemporaneous socio-political trends. Visits to public collections in the region.

HIST. 221 Dr. Conover
The American West 3 credits
(Formerly Hist. 138) A study of acquisition, settlement, and development of the Trans-Mississippi West, including the mining, cattleman's and farmers' frontiers; Indian removal, and Manifest Destiny in Texas and Oregon.

HIST. 222 Dr. Dougherty
America's Military Heritage 3 credits
(Formerly H/PS 149) Tells how events and leaders have influenced the development of the U.S. armed forces, showing that despite changing weapons and battlefield, the principles of warfare remain as valid in today's strategy and planning as ever.

HIST. 222 Dr. Champagne
History of American Presidential Elections 3 credits
A study of the candidates, issues and campaigns in American Presidential elections from Washington to Kennedy. The course will also exam the evolution of the electoral process and the relationship between political parties.

H/PS 224 Drs. Earl, DeMichele
Ethnic & Racial Minorities in Northeastern Pennsylvania 3 credits
(Formerly H/PS 188) Film-seminar approach to study of various ethnic groupings in Northeastern Pennsylvania. Seeks to achieve better understanding of the immigrant's problems and his accomplishments through use of documentary and feature films.

HIST. 225 Dr. Earl
Imperial Russia 3 credits
(Formerly Hist. 150) From the crystallization of political forms in the 9th century through the Kievan State, Mongolian Invasion, rise of Muscovy to the Eurasian Empire from the 17th to the end of the 19th century.

HIST. 226 Dr. Earl
Russian Revolution and Aftermath 3 credits
(Formerly Hist. 151) A study of the development of radical thought in 19th and 20th century Russia. Analysis of various factors and forces at work in revolutionary Russia. Lenin, War Communism, NEP, Stalin.

H/PS 227 Dr. Earl
Soviet Foreign Policy 3 credits
(Formerly Hist. 152; see description under Political Science.)

HIST. 228-229 Fr. Scott
Ancient History 6 credits
(Formerly Hist 101-102) The rise of civilization in Mesopotamia, Egypt, the Indus Valley and the Mediterranean world; growth of civilization in China and India; the rise of Greece and Hellenism; Rome from Republic to Empire; the barbarians and the end of ancient culture; the origins of Christianity; pre-Colombian civilization in the New World.

HIST. 230-231 Fr. Scott
Medieval History 6 credits
(Formerly Hist 110) The civilization of medieval Christendom from the fall of the Roman Empire to the beginning of the fourteenth century; its religious, social, economic, cultural and political aspects; the relationship between church and society, belief and life style, ideal and reality; the interaction between Western Christendom, Byzantium and Islam.

HIST. 232 Dr. DeMichele
England, 1485 to 1714 3 credits
(Formerly Hist. 140) The end of the Wars of the Roses; Tudor Absolutism, Henry VIII and Reformation; Elizabeth I; Renaissance and Elizabethan Music and Literature; The Stuarts; Colonialism; Commonwealth; Restoration; the Revolution of 1688; Reign of Anne.

HIST. 233 Dr. DeMichele
England, 1714 to Present 3 credits
(Formerly Hist. 141) Parliamentary rule; Cabinet government; Political par- ties; Industrial Revolution; 19th Century reforms; building of a British Empire; World War I; problems of readjustment; World War II; Britain and the world today.

HIST. 234-235 Prof. Williams
Latin America History 6 credits
(Formerly Hist. 161-162); prerequisite: for Hist. 234, Hist. 120; for Hist. 235, 234) Pre-Colombian America; the Spanish and Portuguese Colonial area, developments to the early nineteenth century. The Latin American Republics, Castroism, The Alliance for Progress, with special stress on inter-American problems.

HIST. 236 Dr. Homer
Modern Germany: Unification & Empire 3 credits
(Formerly Hist. 165) The 1815 Confederation; 1848 and the failure of liberalism; the Age of Bismark; Wilhelm II and the "New Course", World War I and the Collapse of the Empire.

HIST. 237 Dr. Homer
Modern Germany: the 20th Century 3 credits
(Formerly Hist. 166) The troubled birth of the Weimar Republic: the Ruhr Crisis; the Stresemann Era; economic collapse and the rise of Nazism; the Third Reich, and World War II; the two Germanies and the "economic miracle."

HIST. 238 Dr. Poulson
History of American Women 3 credits
A study of women in American education, religion, reform movements and family life. Introduction to theories of gender analysis.

H/PS 238 Prof. Williams
The Third World 3 credits
(Formerly Hist. 179) A study of the developing nations with the developed industrial nations in the contemporary world.

H/PS 295 Dr. DeMichele
Britain: Past and Present 3 credits
(Formerly H/PS 128) Combines with travel experience in Great Britain to introduce the student to the major historical, cultural, political, economics and social events in Britain's past and present.

HIST. 310 Dr. Champagne
Colonial America, 1607-1763 3 credits
(Formerly Hist. 170) The European background of the Age of Discovery; the founding of the British-American colonies; their political, economic and cultural development; British colonial policy and administration; the development of an American civilization.

HIST. 311 Dr. Champagne
American Revolution, 1763-1789 3 credits
(Formerly Hist. 171) Background to the War for Independence; British imperial policy; the development of economic and ideological conflicts; the military contest; British ministerial policy and the parliamentary opposition; the Confederation; the formation of the Constitution.

HIST. 312 Dr. Champagne
The Early National Period of American History, 1789-1824 3 credits
(Formerly Hist. 173) Beginning of the New Government; Politics and diplomacy in the Federalist Era; Jeffersonian Democracy; the War of 1812; Nationalism and Sectionalism, Marshall and the rise of the Supreme Court.

HIST. 313 Dr. Champagne
The Age of Andrew Jackson, 1824-1850 3 credits
(Formerly Hist. 174) Politics and Society in the Jacksonian Era, Slavery and the Antislavery Crusade, American Expansion in the 1840's; the Mexican War; the Emergence of the Slavery Issue.

HIST. 314 Fr. Masterson
Civil War & Reconstruction 3 credits
(Formerly Hist. 175) Crisis Decade, disintegration of national bonds; The War: resources, leadership, strategy, politics, monetary policy, diplomacy; Reconstruction: realistic alternatives, Presidential and Congressional phases, effects in North and South.

HIST. 315-316 Dr. Feller
Twentieth Century United States 6 credits
(Formerly Hist. 130-131) An intensive study of American Development from 1900 to the present. Stress will be placed on the Roosevelt Era and its Progressivism. Wilson's New Freedom; diplomacy of the First World War; the return to "normalcy"; the Great Depression and the New Deal; Roosevelt and world politics; origins and consequences of World War II. The Truman Era.

HIST. 317 Dr. Hueston
History of United States Immigration 3 credits
(Formerly Hist. 177; prerequisites: Hist. 110 & 111) A study of immigration to the United States with emphasis on the period from the Revolution to the restrictive legislation of the twentieth century. Motives and characteristics of immigration. Experiences of newcomers.

H/PS 317-318 Dr. Kocis
American Constitutional and Legal History 6 credits
(Formerly H/PS 122-123; See description under Political Science.)

HIST. 318 Dr. Hueston
A History of American Assimilation 3 credits
(Formerly Hist. 178; prerequisites: Hist. 110 & 111) The history of assimilation (or adjustment) of immigrants to American life. Nativism from pre-Civil War days to the 1920's. The "Old Immigration" and the "New Immigration" considered in the social, political, economic, and religious contexts of their eras. Special problems of the second generation from the 1850's to the 1960's.

HIST. 319-320 Fr. Scott
Byzantine Civilization 6 credits
(Formerly Hist. 155-156) The Byzantine Empire from its origins in the Fourth century to its collapse in the 15th; the political and economic growth of the Empire with emphasis on its art and religion.

H/PS 319-320 Dr. Hueston
American Diplomatic History 6 credits
(Formerly H/PS 120-121; Prerequisites: History 110 & 111) A study of American diplomatic history and principles. The Revolution. Early American policies on isolation and expansion. The War of 1812. The Monroe Doctrine. Manifest Destiny. The Civil War. American imperialism and the Spanish-American War. Latin American diplomacy in the twentieth century. World War I. Attempts to preclude further war. World War II. Cold War. Contemporary problems.

HIST. 321-322 Dr. Hueston
American Ideas and Culture 6 credits
(Formerly Hist. 136-137; prerequisites: History 110 & 111) History of American art, architecture, literature, and thought. Colonial Developments. The American Enlightenment. The emergence of a national culture. Romanticism. Post-Civil War. Realism in American art and literature. The intellectual response to the industrial order. The American mind in the 1920's. The intellectual and cultural response to the depression. Post-World War II developments.

HIST. 323-324 Fr. Scott
Renaissance and Reformation 6 credits
(Formerly Hist. 112-113) Europe in transition from medieval to modern (from the beginning of the fourteenth century to the middle of the seventeenth century); the decline of medieval civilization; the Renaissance, the shattering of Christian unity in the Protestant Reformation; the Catholic response; the age of exploration; the struggle for empire.

HIST. 325 Prof. Williams
French Revolution to 1815 3 credits
(Formerly Hist. 114; Prerequisite: History 120) Historical antecedents; the philosophies; the republicanism and the fall of the monarchy; Reign of Terror; the Directory; Napoleon; internal achievements; significance of the Spanish and Russian Campaigns; and War of Liberation.

H/PS 326 Dr. Parente
Modern China 3 credits
(Formerly H/PS 181) Study of modern Chinese society and politics from the Revolution of 1911 to the present with an emphasis on recurrent problems of modernization as well as contemporary ideologies and institutions within the People's Republic of China.

HIST. 326 Dr. Homer
Europe in the Age of Absolutism 3 credits
(Formerly Hist. 135: recommended for Background: History 120) A study of the major political, social, economic and intellectual movements in Europe from the rise of royal absolutism until the outbreak of the French Revolution.

HIST. 327-328 Fr. Scott
France, 1814-1940 6 credits
France from the fall of Napoleon; the constitutional monarchies, the Second Republic, the Second Empire, and the Third Republic. The principal cultural movements of the period are covered, along with the political, social, and economic factors.

H/PS 327 Dr. Parente
Modern Japan 3 credits
(Formerly H/PS 183; See description under Political Science)

HIST. 329 Prof. Williams
Europe, 1815-1875 3 credits
(Formerly Hist 115; prerequisite: Hist. 121) The congress of Vienna and the European restoration; Industrialism, Liberalism, Socialism, and Nationalism; the revolutions of the 1840's; the unification of Italy and the German Empire; Russia and the Lesser States of Europe; the Third French Republic.

HIST. 330 Prof. Williams
Europe, 1875-1918 3 credits
(Formerly Hist 116; prerequisite: Hist. 121) The domestic problems con- fronting France, Italy, Germany, Central and Eastern Europe, and Russia. Competition for colonies and markets; the growth of alliances; World War I and the Treaty of Versailles. The Russian Revolution and Communism.

H/PS 331 Dr. DeMichele
English Constitutional and
Legal History to 1485 3 credits
(Formerly H/PS 142) Anglo-Saxon basis; fusion of Anglo-Saxon and Norman political institutions; Angevin innovations; Magna Carta; concept of representation; beginnings of the Common Law; jury system; emergence of Parliament.

H/PS 332 Dr. DeMichele
English Constitutional and
Legal History, 1485 to Present 3 credits
(Formerly H/PS 143) Tudor absolutism, struggle between royal prerogative and Parliament; rise of House of Commons; Parliamentary supremacy after 1688; development of Cabinet government; democratic reforms; Parliamentary Bill of 1911; extension of administrative law.

HIST. 333-334 Dr. Earl
Twentieth Century Europe 6 credits
(Formerly Hist. 117-118) World War I Treaty of Versailles; Russia becomes the USSR; the European struggle for security; Italian Fascism; Rise of Nazi Germany; Asia between the two wars. World War II, loss of colonial empires in Africa and Asia; development of the Cold War; Marshall Plan and NATO.

HIST. 335 Prof. Williams
World War II, Cold War & Detente 3 credits
(Formerly Hist. 182) The diplomacy of World War II; the development of the Cold War between the U.S. and the U.S.S.R. and the adoption of the policy of Detente.

HIST. 490 Staff
Seminar in European History 3 credits
(Formerly Hist. 124; Restricted to Senior History Majors and 4-year BA/MA History students) An analysis of selected topics in European history from the fifteenth to the twentieth century. Extensive readings. Historical research and writing stressed.

HIST. 491 Staff
Seminar in American History 3 credits
(Formerly Hist. 125); restricted to Senior History Majors and 4-year BA/MA History students) An analysis of selected topics in American history from the Colonial era to the present. Extensive readings. Historical research and writing stressed.

Former House Speaker and Mrs. Thomas P. "Tip" O'Neill, Jr., receive honorary degrees.

MATHEMATICS

PROF. EICHELSDORFER, *Chairperson*

The mathematics program balances algebra vs. analysis in its basic courses and pure vs. applied mathematics (including probability and statistics) in its advanced courses. Supporting courses balance traditional physics vs. contemporary computer science. Graduates have great flexibility: some continue study in mathematics or related fields, some teach, some become actuaries, and some work in jobs which vary from programming to management. A student chapter of the Mathematical Association of America encourages early professionalism.

The usual cognates for mathematics majors are computer science and the natural sciences. With the permission of the department chairperson, other cognates may be chosen.

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN	FALL	SPRING
MAJOR	Math 142-114	Discrete-Analysis I	4	4
COGNATE	CMPS 134-144	Computer Science I-II	3	4
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120	Intro. to Phil.	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17	18
		SOPHOMORE		
MAJOR	Math 221-222	Analysis II-III	4	4
MAJOR	Math 351	Linear Algebra		3
COGNATE	Phys. 140-141	Elements of Phys. I-II	4	4
GE AREA II	Soc./Behavior	Electives	3	3
GE AREA III	Communications	Elective	3	
GE AREA IV	Humanities	Electives		3
GE AREA V	T/RS 122	Theology II	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			18	18
		JUNIOR		
MAJOR	Math 446	Real Analysis I	3	
MAJOR	Math 448	Modern Algebra	3	
MAJOR	Math Elec	Electives		6/7
COGNATE	Electives	Electives	3	3
GE AREA II	Soc./Behavior	Electives	3	3
GE AREA V	Phil. 210	Ethics	3	
GE FREE	Electives	Electives	3	3
			18	15/16
		SENIOR		
MAJOR	Math 312	Probability	3	
MAJOR	Math Elec.	Electives	3	3
COGNATE	Electives	Electives	3	3
GE AREA IV	Humanities	Electives	3	6
GE AREA V	Phil.-T/RS	Phil. &/Or T/RS	3	3
			15	15

TOTAL: 134/135 credits

Electives for Mathematics majors: Major electives are selected from mathematics courses numbered above Math 300; also Phys 350, Phys 351, Cmps 362 or Cmps 364. A student must select as an elective at least one of the following: Math 314, 447, 460, 461, or 462. Additional courses numbered under Math 300 may be taken as free electives but not as major electives.

MINOR. Mathematics minor must include Math 114, 221, 222, and 351 and two additional electives chosen from mathematics courses numbered over 300 or Phys 350.

MATH 005
Algebra 3 credits
(Formerly Math 5) A study of algebra including factoring, exponents, radicals, graphing, and linear and quadratic equations. Enrollment is restricted to Dexter Hanley College students required to take Math 106, but who are limited in algebra skills. Permission of the Dean of the Dexter Hanley College is required in order to enroll in this course. Credits count only as free elective.

MATH 101-102*
Math Discovery 6 credits
(Formerly Math 1-2) Study of fundamental ideas of the science of mathematics. Applications of mathematics in social and management sciences used to furnish a foundation for an appreciation of the influence of mathematics in our society.

MATH 103
Pre-Calculus Mathematics 4 credits
(Formerly Math 13) An intensified course covering the topics of algebra, trigonometry, and analytic geometry.

MATH 104
Mathematics for Elementary Teachers 3 credits
(Formerly Math 4) Development of the mathematical skills needed for teaching mathematics at the elementary level. Concepts, processes, and applications of elementary mathematics. Open only to elementary education majors.

MATH 106-107
Quantitative Methods I-II 6 credits
(Formerly Math 6-7) Functions and graphs, matrix methods, differential and integral calculus including applications to management problems.

MATH 108
Mathematics of Finance 3 credits
(Formerly Math 8; Prerequisite: Math 107 or 114.) Introductory theory of interest, accumulation and discount, present value, future value, annuities, perpetuities, amortizations, sinking funds, and depreciation schemes.

MATH 109
Quantitative Methods in the Behavioral Sciences 4 credits
(Formerly Math 9) The mathematics necessary for elementary statistics: algebraic rules, sets, logic, equations, functions, area and the binomial theorem. Particular attention paid to lines, parabolas, reciprocals, square roots, logarithms and exponentials. Intended for students from psychology and related disciplines. Students may not earn credit for both Math 103 and Math 109.

* Once a student receives credit for a mathematics course numbered above Math 102, that student may not register for either Math 101 or Math 102.

MATH 114
Analysis I 4 credits
(Formerly Math 14) The beginning of a twelve credit sequence covering the topics of calculus and analytic geometry. Limits, differentiation, integration, Fundamental Theorem. Prerequisite: Math 103 or equivalent.

MATH 142
Discrete Structures 4 credits
(Formerly Math 12) A study of symbolic logic, sets, combinatorics, mathematical induction, recursion, graph theory and trees. Intended for mathematics, computer science, and computer information systems majors, but open to other qualified students.

MATH 202
History of Math 3 credits
(Formerly Math 42) Important mathematical discoveries in their historical context; the works of some prominent mathematicians and the practical significance of their accomplishments. (GE AREA I only)

MATH 204
Special Topics of Statistics 3 credits
(Formerly Math 44) Study of the computational aspects of statistics; hypothesis testing, goodness of fit; nonparametric tests; linear and quadratic regression, correlation and analysis of variance. (GE Area I only)

MATH 221-222
Analysis II and III 8 credits
(Formerly Math 21-22; Prerequisite: Math 114.) An integrated course covering the topics of calculus and analytic geometry using modern methods.

MATH 312
Probability Theory 3 credits
(Formerly Math 102; Prerequisite: Math 221.) Basic concepts of probability theory, random variables and their distribution functions; limit theorems and Markov chains.

MATH 314
Statistics 3 credits
(Formerly Math 104; Prerequisite: Math 312.) Measure of central tendency, measure of dispersion, continuous random variables, expected value, moments, confidence intervals, hypothesis testing, regression, and correlation.

MATH 330
Actuarial Mathematics 3 credits
(Formerly Math 130; Prerequisite: Math 221.) Theory of interest, accumulation and discount, present value, future value, annuities, perpetuities, amortizations, sinking funds, and yield rates.

MATH 341
Differential Equations 4 credits
(Formerly Math 101; Prerequisite: Math 222.) Treatment of ordinary differential equations with applications.

MATH 345
Geometry 3 credits
(Formerly Math 105) Euclidean, non-Euclidean, and projective geometry. Transformations and invariants.

MATH 346
Number Theory 3 credits
Topics include divisibility, the Euclidean Algorithm, linear diophantine equations, prime factorization, linear congruences, some special congruences, Wilson's theorem, theorems of Fermat and Euler, Euler phi function and other multiplicative functions, the Mobius Inversion Formula. Prerequisite: Math 114.

MATH 351
Linear Algebra 3 credits
(Formerly Math 111; Corequisite: Math 222.) Vector spaces, matrices, determinants, linear transformations, eigenvalues, eignevectors, inner products, and orthogonality.

MATH 384-484
Special Topics 3 credits each
(Formerly Math 116-117) Topics and prerequisites will be announced prior to preregistration.

MATH 446
Real Analysis I 3 credits
(Formerly Math 106; Prerequisite: Math 222.) Topics include: real number line, Heine-Borel and Bolzano-Weierstrass Theorems, functions, limits, continuity, absolute and uniform continuity, differentiation, integration theory, sequences and series, and uniform convergence.

MATH 447
Real Analysis II 3 credits
(Formerly Math 107) Topics to build upon the material covered in Math 446.

MATH 448
Modern Algebra 3 credits
(Formerly Math 108; Prerequisite: Math 351.) Fundamental ideas and properties of groups, rings, fields, and polynomials over a field.

MATH 460
Topology 3 credits
(Formerly Math 120; Prerequisite: Math 446.) Topological spaces: connectedness, compactness, separation axioms, and metric spaces.

MATH 461
Complex Variables 3 credits
(Formerly Math 121; Prerequisite: Math 222.) The theory of complex variables: the calculus of functions of complex variables, transformations, conformal mappings, residues, and poles.

MATH 462
Vector Calculus 3 credits
(Formerly Math 122; Prerequisites: Math 222 and 351.) The calculus of scalar and vector fields and of functions defined on paths or surfaces. Implicit Function, Green's, Strokes', and Gauss' Theorems. Applications.

John Levko, S.J., Ph.D., Professor of Mathematics

MILITARY SCIENCE (Army Reserve Officer Training Corps)

LT. COL. CASEY, *Chairperson*

The primary objective of the ROTC program is to develop leadership capabilities and to train future officers for both the active and reserve components of the United States Army.

Military Science instruction for University of Scranton students is offered on campus through the Military Science Department. Two-year and four-year programs are offered, both of which lead to a commission as an officer in the United States Army. To obtain this commission, qualified male or female students must pass an aptitude test and a physical examination and complete either the two- or four-year program of approved Military Science courses. While contracted in the Advanced Courses (Military Science III and IV), the student will receive $100 per month subsistence allowance. Uniforms, equipment, and textbooks required for Army ROTC classes will be supplied by the Army. Students may compete for Army ROTC scholarships while in high school (4-year awards), or during college (3- and 2-year awards). Scholarships pay the greater of $7,000 or 80% of tuition, textbooks, lab, and other academic fees, plus a subsistence allowance of up to $1000 each school year.

Students qualify for entry into the advanced ROTC course (2-year program) in three ways:

(1) On Campus Courses: Most students take introductory military science courses on campus during their freshmen and sophomore years. These courses allow them to learn about the Army and the opportunities and responsibilities of an officer without incurring an obligation. This "basic" program generally involves one course per school semester.

(2) Summer Programs: Students may also qualify through a paid, six-week, no obligation summer "Camp Challenge" which provides intensive military training at Fort Knox, Kentucky.

(3) Advanced Placement: Students with prior military service, members of the United States Army Reserve or National Guard, or Junior ROTC members may qualify for advanced placement into the advanced Army ROTC course with approval of the Department Chair.

TWO YEAR PROGRAM: Available to qualified full-time students (generally having a minimum of two academic years remaining to degree completion), who meet criteria set forth in paragraphs (2) or (3) above. Application for this program should be made prior to the end of the Spring Semester of the sophomore year for those not enrolled in previous Military Science instruction. Also available for accepted graduate students.

FOUR YEAR PROGRAM: Consists of all eight Military Science courses (commencing no later than the sophomore year). Enrollment in the first four courses of Military Science (MS I & II) is accomplished in the same manner as any other college course and carries no military obligation for non-scholarship students. Application to enroll in the Advanced Military Science courses (MS III & IV) must be made while enrolled in Military Science 202.

While enrolled in the Advanced Course, each student is required to complete a paid six-week Advanced Camp at Fort Bragg, North Carolina, normally after completing Military Science 302. Transportation, food, lodging, and medical and dental care are provided in addition to base pay.

MS 111-112
Basic Course Lab 0 credits
(Formerly MS 10) Required of all Basic Course students (MS I & II) each semester. Introduces students to tactics, leadership, marksmanship, first aid, and weapons. 2 hours.

MS 101-102
Military Science I 2 credits
(Formerly MS 11-12) Instruction designed to provide a fundamental understanding of the Army's organization, structure, and components. Examination of the formulation and implementation of national security policy will be made. The student will become acquainted with military theory and the military profession. Leadership will be stressed throughout the course of instruction. 1 hour for 2 semesters.

MS 131-132
Military Science Lab 0 credits
(Formerly MS 130) Required of all Advanced Course Students (MS III & MS IV) each semester. Stresses practical application of classroom theory and Army related subjects such as leadership, drill and ceremonies, weapons training, land navigation, first aid, mountaineering, and tactics. 2 hours.

MS 201-202
Military Science II 4 credits
(Formerly MS 21-22) Introduction to land navigation, including use of the compass and topographic maps. First aid, to include CPR (certification available, depending on student interest). A survey of leadership theory to include leadership models and group dynamics is held. 2 hours for 2 semesters.

MS 301
Military Science III 2 credits
(Formerly MS 101; Prerequisite: MS 201-202, or equivalent) Military skills and professional knowledge subjects designed to instruct the cadet in the principles and techniques of applied leadership, advanced land navigation, and tactics. An introduction to the international agreements governing armed forces, operational planning, and the functions of command and staff. 2 hours. (GE Area II)

MS 302
Military Science III 1 credit
(Formerly MS 102) Instruction designed to prepare the student for the ROTC Advanced Camp. Emphasis on applied small unit leadership, physical conditioning, practical training on military equipment, tactics and unit drill. 2 hours. (GE Area II)

MS 401
Military Science IV. 2 credits
(Formerly MS 121) An examination of mid-level management considerations in the Army. The course addresses the Army's personnel, training and logistics management systems. The course provides the cadet with an introduction to the profession, its characteristics, roles, and responsibilities. Moreover, cadets at this level are expected to apply their acquired leadership and management skills to the training mission of the ROTC Battalion. (GE AREA II)

MS 402
Military Science IV 1 credit
(Formerly MS 122) The Army Officer in contemporary American Society. An introduction to professionalism and military ethics. An introduction to the profession, its characteristics, roles and responsibilities; a basic understanding of the professional soldier's responsibilities to the nation and the armed forces; an understanding of the needs for ethical conduct, sensitivity to ethical issues, and improved ethical decision making skills. In addition, the cadet is given an overview of the American Military Justice System, the Law of War, and both legal and practical considerations in connection with apprehension and search of personnel, seizure of contraband, and individual rights. The course also offers outside presentations in the banking and insurance fields. 2 hours. (GE Area II)

NOTE: Candidates for an Army commission through Military Science are required by regulation to complete other academic courses. Contact the Professor of Military Science for current requirements.

NEUROSCIENCE

DR. J. TIMOTHY CANNON, Director

The foundation courses of this interdisciplinary curriculum are selected from the Biology, Psychology, and Chemistry departments. Depending upon the electives chosen, the program can prepare students for a variety of graduate programs within the field of neuroscience. Such graduate training may draw from a range of disciplines, including biology, psychology, anatomy, pharmacology, toxicology, biophysics, biochemistry, and medicine. Students have ample research opportunities in laboratories that can support a diversity of behavioral, biochemical, neurophysiological, and neuroanatomical investigations. The program is administered by an interdisciplinary committee and is listed in the 1990 edition of Neuroscience Training Programs, published by the Society for Neuroscience.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Psych. 110-231	Fund. of Psych - Biopsychology	3	4½
MAJOR	Biol. 141-142	General Biology I-II	4½	4½
GE AREA III	Communications	Electives**	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120- T/RS 121	Intro. to Phil-Theol I	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17½	19
		SOPHOMORE		
MAJOR	Elective	Elective*	3/4	
MAJOR	Psych. 210- Psych. 330	Psych. Stat.-Res. Methods	3	5
COGNATE	Chem. 112-113	Gen. & Anal. Chemistry	4½	4½
GE AREA II	Electives	Elective-Elective	3	3
GE AREA III	Elective	Elective	3	
GE AREA V	Phil. 210	Ethics		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17½/18½	16½
		JUNIOR		
MAJOR	Electives	Elective*-Elective*	3/4	3/4
MAJOR	Electives	Elective*-Elective*	3/4	3/4
COGNATE	Math 114- Elective	Analysis I-Elective*	4	3/4
COGNATE	Electives	Elective***-Elective***	3/4½	3/4½
GE AREA IV	Humanities	Elective-Elective	3	3
			16/19½	15/19½
		SENIOR		
COGNATE	Elective	Elective***	3/4	
GE AREA II	Electives	Electives		6
GE AREA IV	Humanities	Elective-Elective	3	3
GE AREA V	T/RS 122- Electives	Theol. II-Electives	3	6
GE FREE	Electives	Electives	6	3
			15/16	18

TOTAL: 134½ to 144 credit

* Students must take 5 major elective courses, 2 from Psychology and 3 from Biology. Psychology electives must be drawn from Psych 220, Psych 221, Psych 222, Psych 225, Psych 230, Psych 234,Psych 235, or, with permission of the director, Psych 284. Biology electives must be drawn from those intended for Biology majors. With permission of the director, Special Topics in Neuroscience (Neur 384) may be used to fulfill one Psychology or Biology elective requirement.

** Unless the student is exempt from the University requirements, Engl. 110 and Comm. 100 are recommended in freshman year.

*** Students should consider their projected graduate program when choosing cognate electives from the areas of chemistry, mathematics, physics, and computer science.

NEUR. 384
Special Topics in Neuroscience
(Formerly Neur. 170; Prerequisites: Biol. 141-142 and Psych. 231) Course topics are developed by individual faculty to provide in depth coverage of a specific area in neuroscience. Some courses have required or elective laboratory components. Course titles and descriptions will be provided in advance of registration.

NEUR. 493-494 Staff
Undergraduate Research in Neuroscience 3-6 credits
(Formerly Neur. 160-161; Prerequisites: Biol.141-142, Psych. 231, Psych. 330, and permission of professor) Individual study and research on a specific topic relevant to neuroscience under the supervision of a faculty member. It is strongly recommended that this research be initiated during the junior year, and it is expected that the research will extend over a two semester period.

PHILOSOPHY

DR. KLONOSKI, *Chairperson*

The basic objectives of the Philosophy Department may be stated as follows:

1) To inspire the student to come to grips with the basic philosophical problems implicit in the experience of the self, others and the universe, together with the question of their relations to ultimate transcendence (God and immortality);

2) To lead the student to develop habits of clear, critical thinking within the framework of both an adequate philosophical methodology and accepted norms of scholarship;

3) To introduce the student to reading critically the great philosophers, past and present;

4) Finally, through this entire process, to help the student to formulate for himself or herself a satisfactory philosophy of life or world-view. Hopefully, such a formulation will ground both one's own search for fulfillment as a free person and one's meaningful contribution to the world community. In this fashion, the Department exercises the specifically illuminating and unifying functions of philosophy as set forth in the basic objective of liberal education adopted by this University.

For the AB degree in Philosophy, the major must take 24 upper division credits in Philosophy in addition to the six credits required of all students. As part of this 24 credits, the student is urged to take in senior year a seminar for philosophy majors. The remaining 21 credits must be distributed as follows: logic (3); history of philosophy (6); thematic or problem-centered courses (6); free (6). Classified as history of philosophy: Phil. 220, 221, 222, 223, 224, 225, 226, 227, 233, 234, 311, 320, 418, 425. Classified as thematic or problem-centered: Phil. 211, 212, 213, 214, 216, 227, 228, 229, 230, 231, 232, 233, 235, 236, 310, 311, 315, 316, 318, 319, 320, 321, 322, 410, 411, 418, 420, 425, 430, 431, 432, 433, 484.

Phil. 120, Introduction to Philosophy, is a prerequisite to any other philosophy course.

PHIL 120 Staff
Introduction to Philosophy 3 credits
(Formerly Phil. 20) The purpose of this course is to awaken the beginning student to the basic questions and answers available in philosophy. Contemporary methods are used to understand both current and classical philosophical literature. While important professional texts are used, this course is kept flexible enough to allow the individual professor to develop his own approach to philosophical problems.

PHIL 210 Staff
Ethics 3 credits
(Formerly Phil. 110) A philosophical study of our moral experience in terms of our meaning as persons. Themes investigated will include freedom of choice and its limitations in moral responsibility, problems of conscience, the meaning of moral value, the norm of morality, natural obligation and human rights and their implications for social involvement of the person and our relation to authority.

PHIL 211 Drs. Klonoski, Black, DiQuinzio
Business Ethics 3 credits
(Formerly Phil. 133; Prerequisite: Philosophy 210) The personal and social ethics of the major areas of decision making in business principles and case work will receive equal stress. Recommended for business majors.

PHIL 212 Drs. Baillie, Roth; Fr. McKinney
Medical Ethics 3 credits
(Formerly Phil. 132; Prerequisite: Philosophy 210) The ethical aspects of abortion, euthanasia and preservation of life, sterilization and contraception, artificial insemination, experimentation on human beings, hypnosis, electro-shock therapy and psycho-surgery. Recommended for premedical and nursing students.

PHIL 213 Dr. Casey
Environmental Ethics 3 credits
(Prerequisite: Phil. 210) An introduction to environmental philosophy and the various ethical responses to the environmental crisis of the late 20th century. Examines the historical roots of the crisis, its industrial and agricultural character, and a variety of competing environmental ethical theories such as Anne Naess' *Deep Ecology*, Murray Bookchin's *Social Ecology*, and Hans Jonas' *Ethic of Responsibility*.

PHIL 214 Dr. Nordberg
Computers and Ethics 3 credits
(Formerly Phil. 135; Prerequisite: Phil. 210)) The computer revolution raises new ethical problems and presents novel aspects of traditional ethical issues. Ethical aspects of hacking, software piracy, computer aided decision making, protection of software by copyright, patent, trade secret laws, unauthorized use of computer resources, privacy and data-base security, program warranties and programmer responsibility, artificial intelligence, the interface between human and computer. Prerequisite: Phil. 210.

PHIL 215 Dr. Casey
Logic: The Art of Communication 3 credits
(Formerly Phil. 28) An introduction to logic as the science of argument including the nature of arguments in ordinary language, deduction and induction, truth and validity, definition, informal fallacies, categorical propositions and syllogisms, disjunctive and hypothetical syllogisms, enthymemes, and dilemmas.

PHILOSOPHY

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Phil. 120-210	Introduction-Ethics	3	3
GE AREA I	Nat. Sci./Quant.	Elective		3
GE AREA III	Communications	Foreign Language *	3	
GE AREA III	Communications	Electives *	3	3
GE AREA IV	Humanities	Electives	3	6
GE AREA V	T/RS 121	Theology I	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Phil. 215-Elec.	Logic-Thematic Elective	3	3
MAJOR	Phil. Elec.	Hist. of Philosophy Elect.		3
GE AREA I	Nat. Sci./Quat.	Electives	3	3
GE AREA II	Social/Behavior	Electives	6	6
GE AREA V	T/RS 122	Theology II	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Philosophy	Thematic & Free Electives	3	3
MAJOR	Philosophy	Hist. of Phil. Elect.	3	
COGNATE	Electives	Electives	6	6
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. or T/RS	Philosophy/Religious Studies Elective	3	
GE FREE	Elective	Elective		3
			18	15
		SENIOR		
MAJOR	Philosophy	Elective-Major Seminar	3	3
COGNATE	Electives	Electives	6	6
GE AREA IV	Humanities	Elective		3
GE FREE	Electives	Electives	6	3
			15	15
			TOTAL: 127 credits	

* Foreign language is recommended by Department. Three credits may be placed in Area III (Communications) and three credits in Area IV (Humanities). ENGL 110 (Composition) and Comm. 100 (Public Speaking) are also recommended by the department for Area III.

In the Cognate area of 24 hours, the department requires that 12 credits be focused in one field. It should be noted that six credits not required by the department in the Major area are added to the Free Area in senior year. These may be taken in any field including philosophy.

MINOR. A minor in philosophy consists of 18 credits, i.e. the 6 credits required of all students and 12 additional credits to be chosen by the student.

PHIL 216 Dr. Whittaker
Logical and Rhetorical Analysis 3 credits
(Formerly Phil. 112) A study of the principles of logic and persuasion, an analysis of fallacies, the principles of structure in written and oral composition. Practice in briefs and abstracts with an emphasis on exactness and clearness. (GE Area III)

PHIL 220 Dr. Klonoski
Ancient Philosophy 3 credits
(Formerly Phil. 113) The Pre-Socratics, Plato, Aristotle and their immediate successors. Special emphasis on the Theory of Knowledge, the Metaphysics and philosophical Anthropology of Plato and Aristotle.

PHIL 221 Dr. Rowe
Medieval Philosophy 3 credits
(Formerly Phil. 114) The origin and character of medieval philosophy, early Christian Philosophy, the controversy of the universals, outstanding thinkers of the early scholastic period and the influence of Islamic and Jewish philosophy. (Prerequisite: Ancient philosophy or metaphysics or professor's permission.)

PHIL 222 Dr. Nordberg
Modern Philosophy I 3 credits
(Formerly Phil. 121) The Renaissance Background: Petrach and the humanist movement; Galileo and the beginnings of modern science. Descartes: mathesis universalis; the difficulties of the Cartesian method; solution in the one substance of Spinoza. British Empiricism: Locke and the problem of substance, Berkeley's 'Esse est percipi', culmination in Hume and the doctrine of perceptual atomism.

PHIL 223 Fr. Mohr
Modern Philosophy II 3 credits
(Formerly Phil. 122) The development of idealism in the thought of Kant, Fichte, Schelling, and Hegel, with its influence on Feuerbach, Marx, Engels, and Kierkegaard. Special consideration of dialectical thinking in its resolution of the antitheses of reality and appearance, freedom and necessity, infinite and finite, and faith and knowledge.

PHIL 224 Dr. Fairbanks
Foundations of 20th Century 3 credits
Philosophy A study of some of the key figures that have set the tone for the 20th Century philosophy. Buber, Marx, Kierkegaard, Hume, and Russell are studied in detail.

PHIL 225 Dr. Casey
Contemporary Philosophy 3 credits
(Formerly Phil. 127; Prerequisite: Phil. 210) A survey of 20th Century schools of philosophy including pragmatism (William James), phenomenology (Heidegger), existentialism (Sartre), post-structuralism (Derrida), and analytic philosophy (Wittgenstein).

PHIL. 226 Dr. Roth
Oriental Philosophy 3 credits
This course will introduce the student to the classical and modern Chinese understanding. The core of the course will focus on the Taoist's teachings and vision, the modifications made to Taoism by Buddhism, and the thought of Confucius and the Neo-Confucians. Included in the course will be reflections, comparisons and contrasts with Western thought and some discussion of Japanese Buddhism. The topics of the course will be politics, ethics, social life, mysticism, religion and reality.

PHIL 227 Dr. DiQuinzio
Political Philosophy 3 credits
(Formerly Phil. 131) Philosophical and ethical analysis of the social nature of man with emphasis on modern social questions. Ethics of the family, of nation and of communities. International ethics.

PHIL 228 Dr. Fairbanks
Philosophy of the Person 3 credits
(Formerly Phil. 105) This course will deal with the basic questions that confront the human person. This will involve an analysis of the social situation, a discussion of the implications of this situation for the person as he/she relates to the world, and a search for the meaning of the 'whole person'.

PHIL 229 Fr. Mohr
Philosophy of Religion 3 credits
An investigation of the main topics which have emerged in philosophers' reflections on religion: arguments for the existence of God; the possibility of statements about God; assessment of religious experience; the notions of miracle, revelation, immortality and afterlife; the problem of evil; relations between religious faith and reason; religion and ethics. Selected reading from classical and contemporary authors.

PHIL 230 Dr. Capestany
Philosophy of History
(Formerly Phil. 154) This course considers three fundamental aspects. First, the ultimate causes of the historical facts (philosophy of history); second, the ultimate causes of the knowledge of those facts (philosophy of the science of history); and finally, a study of the unification of these two in man, reality, and theology.

PHIL 231 Dr. Roth
Philosophy of Women 3 credits
This course reviews the philosophies of woman in western thought from Plato and Aristotle to Nietzche, Schopenhauer, and Beauvoir. It concludes with an interdisciplinary selection of readings on women to be addressed philosophically, be in art, anthropology, literature, politics, theology, psychology, etc.

PHIL 232 Dr. Capestany
Idea of a University 3 credits
(Formerly Phil. 126) An investigation of the philosophy of a liberal education, using John Henry Newman's *Idea of a University* as a tool.

PHIL 233 Fr. Mohr
Language and the 3 credits
Existence of God
(Formerly Phil. 125) A study of methods of expressing God's existence in language, this course will examine the proofs for existence of God in Anselm, Thomas Aquinas, and Descartes, analyze Kant's criticism and Hegel's reevaluation of such proofs, and reflect on modern theories of language about God.

PHIL 234 Fr. Mohr
Existentialism 3 credits
(Formerly Phil. 117) A critical study of selected works of Kierkegaard, Jaspers, Marcel, and Sartre with special emphasis on the existentialist themes of selfhood, freedom, dread, responsibility, temporality, body, limited and unlimited knowledge and reality, and fidelity to community.

PHIL 235 Dr. Fairbanks
New Directions in Philosophy 3 credits
(Formerly Phil. 160) The purpose of this course is to use very recent works that develop major philosophical concepts to explain current and possible future roles in human behavior. A course of this type must be constantly updated. However, some of the following books will be used: *The Third Wave, Megatrends, The Fifth Generation, The Hidden Injuries of Class, The Tao Jones Averages, The Aquarian Conspiracy, The Tao of Physics and In Search of Excellence.*

PHIL 236 Dr. McGinley
Freud and Philosophy 3 credits
(Formerly Phil. 156) Examination of overt and covert philosophical implications of Freud's system of psychoanalysis. Emphasis on actual writings of Freud, particularly after 1920.

PHIL 310 Dr. Casey
Epistemology 3 credits
(Formerly Phil. 104) An historical and analytical examination of the problem of knowledge within the context of the problem of truth. Areas of investigation are authentic and unauthentic thinking and verbalization; the relationship between thought and language; the relationship between thought and experiencing; the critical status of the fundamental positions on the problem of ultimate truth.

PHIL 311 Drs. Baillie, McGinley
Metaphysics 3 credits
(Formerly Phil. 108) A textual inquiry into the adequacy of philosophers' answer to the fundamental question, "What is?". Special attention will be given to Plato, Aristotle, Aquinas, Kant's critical philosophy, and the issues of nature and history.

PHIL. 315 Dr. Harold Baillie
20th Century Political Philosophy 3 credits
This course is a survey of modern social contract theory, and its relation to capitalism, and of modern marxism. Issues raised will include obligation and consent, equality, freedom and self-determination, the role of markets, and the role of the state.

PHIL 316 Prof. DiQuinzio, Meagher
Feminism: Theory/Practice 3 credits
In this course we will explore the relationship between feminist analyses of sexism and political practices aimed at eliminating it. To this end we will examine divergent political traditions and show ways in which feminists have criticized, appropriated, and made use of them in their own work. Special attention will be paid to the interrelationship of gender, class and race.

PHIL. 318 Dr. Harold Baillie
Social Justice 3 credits
The purpose of this course is to raise issues that involve obligations of the society to the individual and the individual to society. It will begin by questioning the relation between conceptions of justice and conceptions of rationality and then move to the examination of the claims of human dignity across traditions.

PHIL 319 Dr. Capestany
Philosophy of Law 3 credits
(Formerly Phil. 107) A study of the various justifications of law and their implications. Special consideration will be given to the problems of civil disobedience and the force of law in private institutions.

PHIL 320 Drs. Capestany, Black
Aesthetics 3 credits
(Formerly Phil. 111) The main theories of the essential character of beauty or art, how they are judged, how they are related to the mind and the whole person, how they are created and how this creativity expresses a commitment to oneself and to the world.

PHIL 321 Dr. Nordberg
Great Books 3 credits
(Formerly Phil. 159) Major thinkers in the Western philosophical, religious, political and literary traditions. This course emphasizes philosophical themes in literature.

PHIL 322 Dr. Black
Philosophy of Conscience 3 credits
(Formerly Phil. 165) This course explores the mitigating ideals of cultural activity. Love, laughter, and rhetoric are examined both as the models of conscience and as imagination-based phenomena that generate the primary metaphors of a moral society. Special consideration will be given to theories of Kant, Marx, and Plato.

PHIL 410 Dr. Black
Philosophy of Culture 3 credits
(Formerly Phil. 106) Examines the meaning of the term "culture." Explores the notions of civilization and barbarism, common principles in cultural development, and the interaction of such cultural forces as myth, magic, language, art, religion, science and technology. Special attention will be given to the question of "progress" and "regress" in culture.

PHIL 411 Dr. Capestany
Philosophy of Aquinas 3 credits
(Formerly Phil. 115) Significance of Aquinas' incorporation of Aristotelianism into the Christian West in the 13th century. Importance of his synthesis of philosophy and theology. Examination of his metaphysics, anthropology and ethics. His relevance to the world.

PHIL 418 Dr. Klonoski
Phenomenology 3 credits
(Formerly Phil. 118) An introduction to phenomenology, which is a critical methodological approach to human experience. This 20th century European movement will be examined through selected works of Husserl, Heidegger, Sartre, and Merleau-Ponty. The intent of the course is to explore phenomenology both as a theoretical approach to the study of human consciousness and the lived-world and as a unique philosophical method.

PHIL 420 Dr. Black
Philosophy of Rhetoric 3 credits
A systematic and historical investigation of the form, meaning, and influence of rhetoric. Explores the relationships between *topic* and metaphor, logic and narration, *ethos* and *logos*, conscience and persuasion. Special attention is given to the natural and unnatural relationships between the rhetorician and the philosopher.

PHIL 425 Fr. McKinney
Postmodern Philosophy 3 credits
(Formerly Phil. 158) An examination of the transition from modernist culture and thought to postmodernist culture and thought. Deerida's method of deconstruction will serve as the paradigm example of postmodernism. Recommended for those interested especially in literature and fine arts.

PHIL 430 Prof. Meagher
Philosophy of the Social Sciences 3 credits
The goal of the course is to encourage students to think philosophically about issues raised in social scientific studies,especially regarding the following: 1) the problem of cross-cultural understanding and interpretation, 2) the difficulties of research design and methodology, and 3) the relationship between social science, ethics, and policy making. Readings will be drawn from social scientific texts, "classic" debates in the philosophy of social science, and recent work in feminist epistemology and philosophy of the social sciences. Students interested in philosophy and/or the social sciences are encouraged to participate.

PHIL 431 Dr. Fairbanks
Philosophy of Science 3 credits
(Formerly Phil. 155) An introduction to the history and philosophy of science. Selections from Darwin's *The Origins of Species* (1859) and *The Descent of Man* (1871) and Popper, Feyerabend, Hanson, Stace, Quine, Frank, Rescher, Hempel and Baier.

PHIL 432 Dr. T. Casey
Philosophy of Technology 3 credits
(Formerly Phil. 179) This course will examine technology as a philosophical issue and shed light on the nature of technology especially over the last 100 years. Based on technology's relation to Western culture since the Middle Ages, the course will analyze the social, political, metaphysical, and ethical significance of modern technics.

PHIL. 433 Dr. Fairbanks
Linguistic Philosophy 3 credits
The purpose of this course is to introduce the student to some of the major writers who have influenced in a major way twentieth century analytic and linguistic philosophy. These philosophers include C.S. Peirce, G. E. Moore, B. Russell, Wittgenstein, Ayer, Ryle, Wisdom, Quine, and Austin.

PHIL 484 Staff
Major Seminar 3 credits
(Formerly Phil. 190) For Seniors only, recommended for all majors. A concentrated investigation of an author or thematic problem.

Ronald H. McKinney, S.J., Associate Professor of Philosophy and Director of the SJLA Program.

PHYSICAL EDUCATION

DR. WODDER, *Chairperson*

The Physical Education Department aims to improve the physical fitness level of each student and improve and increase students' recreational skills. Emphasis is placed on instruction in a wide variety of popular sports, recreational and competitive athletics, especially those with carry-over value for post college years.

Physical Education is required two periods per week through the freshman and sophomore year. One credit hour is granted in Physical Education each semester.

Every regularly enrolled freshman and sophomore student except veterans must satisfy the Physical Education requirement unless excused by the Physical Education Department.

It is possible to be excused from the Physical Education classes by application to the Physical Education Department if (a) a physician certifies that a student, for medical reasons, should not engage in vigorous physical activity; (b) a student is a member of an intercollegiate varsity team; (c) the department deems it advisable; (d) veterans.

Grading: S—Satisfactory
Grading: U—Unsatisfactory, requiring repetition of course
Grading: These grades (except for PHED 137 and PHED 202) will not be computed in the Quality Point Index.

Physical Education 1 credit

Students taking physical education may elect from the following: tennis, swimming, yoga, skiing, soccer, racquetball, weight training, aerobics, basketball, volleyball, bowling, running, karate, self-defense for women, judo, advanced life saving, WSI, ballet, modern jazz dance, care and prevention of athletic injuries, and health education. Four credits are needed for graduation.

PHED 137 Prof. Roberts
Basic Athletic Training 3 credits

Covers sports medicine topics—stretching, strength training, the female athlete, nutrition, taping, and emergency procedures. One half the semester will be spent on the evaluation of injuries. Course is specifically geared to students interested in becoming a certified athletic trainer, but arrangements will be made for students interested in basic sports medicine.

PHED 138
Army Physical Fitness
Training Program 1 credit

The Army's fitness program seeks to improve and/or maintain the components of physical fitness (Aerobics and running, strength and endurance training, flexibility and calisthenics, and diet and body composition) and motor fitness (Speed, agility, coordination, and balance) through technically sound, progressive, and appropriate training. Designed primarily for ROTC Advanced Course (MS III/IV) and Scholarship students to allow them to function effectively in physical and mental work, training, and life-time recreation and still have energy to handle emergencies. This course is designed (but not required) to be counted toward the four credit PE requirement during the Junior and Senior years. This course may be audited (with permission from the Professor of Military Science) and is open to all students. Meets three times a week in the morning.

PHED 200 Drs. O'Malley, Wodder,
Coaching Young Athletes Prof. Robertson
3 credits

(Formerly PHED 40) A comprehensive educational program primarily for coaches of young athletes (ages 6-18). Sports specific and sports medicine and science information which can lead to a ACEP (American Coaching Effectiveness Program) Level I Coaching Certification. (Applicable only to FREE Area of General Education Program.)

PHYS. ED. 201 Prof. Bessoir
High School Coaching 3 credits

(Formerly PHED 108) Especially useful for those who wish to teach and coach high school, this course is concerned with coaching psychology, organization, training and taping, and fundamentals of sports among other topics. (Applicable only to FREE AREA of General Education Program.)

PHED 202 Prof. Roberts
Advanced Athletic Training 3 credits

Highlights topics pertaining to sports medicine such as legal issues, skin conditions, illnesses, drug testing, therapeutic modalities and administration. One half the semester will be spent on rehabilitation programs for specific injuries. Prerequisite: Basic Athletic Training.

PHYSICS

DR. CONNOLLY, *Chairperson*

The department of Physics/EE offers majors in physics and biophysics, as well as the electronics engineering and electronics-business majors described earlier. The objectives of the department are to provide skills, understanding, and the methodology required to initiate active participation in the development of new knowledge about the material universe. The approach of the physical scientist and engineer, based as it is on the analysis of mathematical models dealing with matter and energy and their interactions, supplies a unique and important insight to the solution of problems in many disciplines.

A 1988 study by the office of institutional research at Franklin and Marshall College shows that over the last 66 years, the University of Scranton ranked 33rd out of 877 four-year, private, primarily undergraduate institutions as the baccalaureate origin of physics doctorates. In addition, the biophysics concentration in recent years has regularly produced students admitted to medical school.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Phys. 140-141	Elements of Physics I-II	4	4
COGNATE	Math 103-114 or or Math 114-221	Pre-Calculus Math.-Analysis I Analysis I-II	4	4
GE AREA II	Social/Behavior	Elective		3
GE AREA III	Communications	Electives*	3	3
GE AREA V	Phil. 120 or T/RS 121	Intro. to Philosophy or Theol. I	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			15	15
		SOPHOMORE		
MAJOR	Phys. 270-352	Elements Modern Physics-Statistical and Engineering Thermodynamics	4	3
COGNATE	Math 221-222 or Math 222-341	Analysis II-III or Analysis III-Differential Equations	4	4
GE AREA II	Social/Behavior	Electives	3	3
GE AREA III	Communications	Elective*	3	
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS 121 or Phil. 120	Theol. I or Intro. to Phil.		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			18	17
		JUNIOR		
MAJOR	Phys. 447-448	Electromagnetics I-II	3	4
MAJOR	Phys. 371-372	Mechanics—Atomic/LASER Phys.	3	3
COGNATE	Math. 341 or Math/Phys. Elec.	Differential Equations or El.	4/3	
COGNATE	Phys. 350	Applied & Engineering Math		3
GE AREA IV	Humanities	Electives	3	
GE AREA V	Phil. 210	Ethics	3	
GE AREA V	T/RS 122	Theology II		3
			15/16	16
		SENIOR		
MAJOR	Phys./EE	Electives	3	3
MAJOR	Phys. 493	Physics Research	1	3
GE AREA II	Social/Behavior	Elective	3	
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil.-T/RS	Philosophy and/or Religious Studies	3	3
GE FREE	Electives	Electives	3	3
			16	15
			TOTAL: 128/127 credits	

* The Department recommends Comm. 100, Engl. 110, and, in fall semester of sophomore year, CMPS 134 for GE AREA III.

BIOPHYSICS

The biophysics major is designed to prepare a student to apply the physical and mathematical sciences to problems arising in the life sciences and medicine. By choosing proper electives, the student can prepare to enter graduate study of biophysics, biology, biochemistry, medicine or dentistry.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Biol. 141-142	General Biology 141-142	4½	4½
MAJOR	Physics 140-141	Elements of Physics I and II	4	4
COGNATE	Math. 103-114 or Math. 114-221	Pre-Calculus Math-Analysis I or Analysis I-II	4	4
GE AREA III	Communications	Electives*	6	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			18½	16½
		SOPHOMORE		
MAJOR	Phys. 270-352	Modern-Statistical Physics	4	3
MAJOR	Chem. 112-113	General & Analytical Chem.	4½	4½
COGNATE	Math 221-222 or Math 222-341	Analysis II-III or Analysis III-Diff. Equations	4	4
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Introduction to Theology		3
GE AREA IV	Humanities	Elective		3
PHYS EDUC	Ph. Ed.	Physical Education	2	1
			17½	18½
		JUNIOR		
MAJOR	Phys.,Bio.,Chem.	Elective	3	
MAJOR	Phys.,Bio.,Chem.	Elective		3
COGNATE	Chem. 232-233	Organic Chemistry I-II	4½	4½
GE AREA II	Social/Behavior	Electives	3	3
GE AREA IV	Humanities	Electives	6	3
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS	T/RS Elective		3
GE FREE	Elective	Elective	3	
			19½	19½
		SENIOR		
MAJOR	EE. 241	Circuit Analysis		5
MAJOR	Phys.,Bio.,& Chem.	Electives	6	6
GE AREA II	Social/Behavior	Electives	3	3
GE AREA IV	Humanities	Electives	6	
GE AREA V	Phil.-T/RS	Philosophy and/or T/RS	3	3
			18	17
			TOTAL: 145 credits	

* Department recommends Engl. 110, Comm. 100, and CMPS 134, for GE AREA III electives.

MINOR. The minor in Physics includes Phys 140, Phys 141, Phys 270 (all with labs), Phys 352, Engr 252, and at least one of Phys 473, Phys 372 and/or Phys 371. Minimum credits required for minor: 21.

PHYS 101 Dr. Doiron
Modern Astronomy 3 credits
(Formerly Phys. 2) An introductory course for non-science students. A review of the basics about the sun and planets based on the most recent Voyager and Pioneer probes. The observational basis for Astronomy. Basic ideas about the birth and death of stars, blackholes, neutron starts, white dwarf star, star clusters and galaxies. Theory of the origin of the solar system and the universe.

PHYS 102 Prof. Birmelin, Dr. Connolly
Earth Science 3 credits
(Formerly Phys. 4) Introductory level course for non-science majors. Selected topics from geology and meteorology; weather forecasting, ground and surface water, mountain building, volcanoes, earthquakes, plate tectonics and oceanography. Three hours lecture. No prerequisite.

PHYS 103 Prof. Birmelin
Seeing the Light 3 credits
(Formerly Phys. 5) A one-semester course in the physics of light and vision. Includes topics such as—physics of the human eye, the physics of telescopes, microscopes and cameras.

PHYS 104-105 Dr. McGinnis
Role of Electronics in Communication 6 credits
(Formerly Phys. 25-26) Introduction to the fundamentals of Electronics Conversion of audio and visual information to electrical signals. Transmission and reception to A-M and F-M signals in radio and TV. Fundamentals of Color as applied to TV. Selected topics in digital communications. This course is designed for the Communications Major and assumes no previous training in Physics or Electronics (GE Area I).

PHYS 106 Prof. Kalafut
Energy and the Environment 3 credits
(Formerly Phys. 6) A course for non-science majors that emphasizes the various aspects of man's use of energy and changes in the environment that accompany that use. Sources of energy; the nature of the present energy and environmental crises and possible solutions; energy requirements of the future; conservation and alternate energy sources.

PHYS 120-121 Staff
General Physics 8 credits
(Formerly Phys. 9-10; prerequisites: Mathematics 103-114) General college course for pre-medical, pre-dental and biology majors. Mechanics, heat, electricity and magnetism, sound, light and modern physics. Three hours lecture and recitation and two hours laboratory.

PHYS 140-141 Staff
Elements of Physics 8 credits
(Formerly Phys. 11-12; corequisite: Mathematics 114-221) Calculus based introduction to the elements of Physics. Topics covered: mechanics, heat, sound, light and electricity and magnetism. Required of Physics, E.E., Mathematics, Computer Science and Chemistry majors. Three hours lecture and recitation and two hours laboratory.

PHYS 270 Prof. Kalafut
Elements of Modern Physics 3 credits
(Formerly Phys. 21; prerequisites: Physics 141 and Math 114) Introductory Modern Physics course for physics and engineering majors; also recommended for other science majors. Review of classical physics; Special Theory of Relativity; atomic theory of hydrogen from Bohr to Schroedinger; multielectron atoms and the periodic table; introduction to nuclear physics. Three hours lecture and two hours laboratory.

PHYS 350 Dr. Fahey
Applied and Engineering Mathematics 3 credits
(Formerly Phys. 118; prerequisite: Cmps. 362, Physics 141) First and second order differential equations with constant coefficients; Fourier series differential equations with constant coefficients; Fourier series and Fourier Transforms; partial differential equations and boundary value problems; special functions, e.g. Bessel functions and Legendre polynomials; elementary probability theory. (Also listed as Engr. 350.) 3 hours lecture.

PHYS 351 Staff
Mathematical Physics II 3 credits
(Formerly Phys. 153) Functions of a Complex Variable. Infinite Series in the Complex Plane. Theory of Residues. Conformal Mapping. Fourier and Laplace Transforms. Advanced Partial Differential Equations. Boundary ValueProblems in Physics. Green's Functions.

PHYS 352 Staff
Statistical and Engineering Thermodynamics 3 credits
(Formerly Phys. 22; prerequisite: Phys. 270) Derivation of Thermodynamics from probability theory and atomic physics; Laws of Thermodynamics; Maxwell relations; chemical potential and phase changes; refrigerators and heat pumps; theory of gasses and theory of solids. Special topics dependent upon interests of majors represented. (Also listed as Engr. 352). 3 hours lecture.

PHYS 371 Staff
Advanced Mechanics 3 credits
(Formerly Phys. 123; prerequisite: Math 341) Comprehensive course in Newtoniandynamics, Variational principles, Lagrange's and Hamilton's equations; theory of small oscillations and specialized non-linear differential equations in mechanical systems.

PHYS 372 Prof. Kalafut
Atomic and LASER Physics 3 credits
(Formerly Phys. 110; prerequisite: Physics 270 & Math 341) Intensive and quantitative treatment of modern atomic physics using the principles and techniques of quantum mechanics. The study of energy levels, pumping, feedback and transition rates in lasers. Required of physics majors and highly recommended elective for Electronics Engineers. Three hours lecture with optional laboratory.

PHYS 447 Dr. Berger
Electromagnetics I 3 credits
(Formerly Phys. 116; prerequisites: Physics 270, Phys. 350) Analytic treatment of electrical and magnetic theory; vector calculus of electrostatic fields; dielectric materials; vector calculus of magnetic fields. (Also listed as EE 447). 3 hours lecture.

PHYS 448 Dr. Berger
Electromagnetics II 3 credits
(Formerly Phys. 117; prerequisite: Phys. 447) Magnetic materials, electomagnetic induction, displacement currents, Maxwell's equations; radiation and waves; applications include transmission lines, wave guides and antennas. (Also listed as EE 448). 3 hours lecture.

PHYS 448 L Dr. Doiron
Electromagnetics Design Laboratory 1 credit
(Formerly Phys. 117 L; corequisite: Phys. 448) Laboratory designed to emphasize and reinforce the experimental basis of electromagnetism. Multi-week projects require the student to perform experiments that measure fundamental electrical constants, the electrical and magnetic properties of matter, and the properties of electromagnetic waves. (Also listed as EE 448 L). 2 hour laboratory.

PHYS 473 Prof. Kalafut
Optical Electronics 3 credits
(Formerly Phys. 103; prerequisites: Physics 270, Math 341 or Phys. 350) An introduction to the principles of geometrical and physical optics and their application to electronic devices. Topics to be covered include ray and wave optics in linear and non-linear media, waveguides and fiber optics, and the generation and detection of optical radiation. Three hours lecture.

PHYS 474 Dr. Fahey
Acoustics 3 credits
(Formerly Phys. 155; prerequisite: Phys. 350) This course covers the fundamentals of vibration as applied to one, two and three dimensional systems with varied boundary conditions. Transmission, absorption, attenuation, and radiation are covered. Resonators and waveguides and filters are studied along with the fundamentals of transducers. Acoustical issues in hearing are covered, time permitting.

PHYS 493 Dr. Spalletta and Staff
Undergraduate Physics Research Variable Credit
(Formerly Phys. 121) Recommended for senior physics students who pursue a specific physical research project to gain experience with research literature, techniques and equipment. Projects are recommended by members of the department and approved by the Chairperson. Written report required.

Dr. Joseph Connolly, Chairperson of the Physics-Electronics Engineering Department, and Mr. Francis Lynott of the McDade Technology Center demonstrate the large digitizer in the CAD lab.

POLITICAL SCIENCE

DR. DeMICHELE, *Chairperson*

The Bachelor of Science degree program in political science aims to accomplish the following objectives: 1. to give the student a thorough understanding of the nature and purposes of civil society; 2. to impart a sound knowledge of the philosophical basis of democracy; 3. to enable the student to appreciate the problems of his or her own government at work; and 4. to relate the American system to the governments of other states in the international community.

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN	FALL	SPRING
MAJOR	Pol. Sci. 120-121	Intro. to Political Science I-II	3	3
COGNATE	Hist. 110-111	United States History	3	3
COGNATE	Hist. 120-121	Europe: 1500 to Present	3	3
GE AREA III	Communications	Electives*	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Pol. Sci. 130-131	American National Government	3	3
GE AREA I	Math	Math (at appropriate level)	3/4	3/4
GE AREA III	Communications	Elective*	3	
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122	Theology II	3	
GE FREE	Elective			3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16/17	16/17
		JUNIOR		
MAJOR	Pol. Sci. 313	Western Political Thought		3
MAJOR	Pol. Sci.	Electives**	3	3
MAJOR	Pol. Sci. 240-elec.*	Political Science Statistics I-elective	3	3
COGNATE	Soc. Sci.	Social Science Electives	3	3
GE AREA I	Nat. Sci./Quant.	Electives	3	
GE AREA V	Phil.-T/RS	Philosophy or Theology/ Religious Studies		3
GE FREE	Electives	Electives	3	3
			15	18
		SENIOR		
MAJOR	Pol. Sci.	Electives	6	3
COGNATE	Electives	Electives	3	3
GE AREA IV	Humanities	Electives	6	6
GE AREA V	Phil.-T/RS	Philosophy orTheology/ Religious Studies		3
			15	15

TOTAL: 127 credits

* As Communications electives in GE AREA III, the department recommends Comm. 100, English 110 and Comm. 210. For GE AREA IV Humanities electives, the department recommends Hist. 317-23, 331-43. In the GE FREE AREA, the department recommends a modern foreign language in junior year with subsequent language courses to follow in senior year as part of GE AREA IV (humanities). The departmental advisor should be consulted.

** Pol. Sci. 241 (Statistics II) is recommended as elective in spring semester of junior year, particularly for students planning on graduate school or law school.

PUBLIC ADMINISTRATION-PUBLIC AFFAIRS

Intended to improve society by providing professional training for men and women who seek careers as agency administrators, program directors, staff analysts in local, state or federal government or other public service organization, the public affairs/public administration major is also specially suited for those who wish to pursue graduate studies in law, political science, business, planning or development.

Analytical and quantitative skills are developed in combination with a firm background in the social and behavioral sciences in order to provide: 1. substantive knowledge of a range of societal problems, the unique political environment in which the problems exist, and management systems for achieving implementation of policy decisions; 2. management skills in the areas of motivation of leadership, organizational management, personnel management and program evaluation; 3. sensitivity to values of public interests, equal rights, economic, social, cultural and religious institutions.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Pol. Sci. 110-111	Intro. to Pub. Admin./Pub. Pol.	3	3
GE AREA I	Math	Math (at appropriate level)	3	3
GE AREA III	Communications	Electives*	3	3
GE AREA IV	Humanities	Electives***	3	3
GE AREA V	Phil. 120	Introduction to Philosophy		3
GE AREA V	T/RS 121	Theology I	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Pol. Sci. 130-131	American National Government	3	3
MAJOR	Pol. Sci. 240-241	PS Statistics I & II	3	3
COGNATE	Econ. 151-152	Principles of Economics	3	3
GE AREA III	Communications	Elective	3	
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122;Phil-T/RS	Theol. II/Elective	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Pol. Sci. 327	Public Management & Personnel	3	
MAJOR	Pol. Sci. Electives	Electives**	3	3
COGNATE	Soc. 110, Elective	Prin. of Sociology-Soc. Sci. Elective	3	3
COGNATE	Acc. 253-254	Financial & Managerial Accounting	3	3
COGNATE	Soc. 110	Principles of Sociology		3
GE FREE	Electives	Electives	3	3
			15	15
		SENIOR		
MAJOR	Pol. Sci. 325	Politics of the Budgetary Process	3	
MAJOR	Pol. Sci. 324	Public Policy Analysis		3
MAJOR	Pol. Sci. 480	Public Admin. Internship		3
COGNATE	Soc. Science	Soc. Science Electives	3	3
GE AREA I	Nat. Sci./Quant.	Elective	3	
GE AREA IV	Humanities	Electives***	6	6
GE AREA V	Phil.-T/RS	Elective	3	
			18	15
			TOTAL:	127 credits

* Department recommends Comm. 100 & English 110 for AREA III Electives

** Major electives to be selected in consultation with advisor

*** Department recommends History 110-111 & History 120-121 for AREA IV Electives

INTERNATIONAL STUDIES

A major in International Studies seeks to provide the student with a full recognition and understanding of the multitudinous forces which shape the contemporary world—nationalism, wars, political and economic ideologies, cultural differentials, and modern technology. Such a broad knowledge and understanding of world affairs can be utilized in careers in teaching, international business, the legal profession, journalism, the Foreign Service of the United States, and other government agencies.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	History 110-111	United States History	3	3
COGNATE	Pol. Sci. 130-131	American National Government	3	3
COGNATE	Language 101-102 or 211-212	Elementary or Intermediate	3	3
GE AREA III	Communications	Electives**	3	3
GE AREA V	Phil. 120	Introduction to Philosophy		3
GE AREA V	T/RS 121	Theology I	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	History 120-121	Europe: 1500 to Present	3	3
MAJOR	Pol. Sci. 212-312	Internatl. Rel.-Ecopolitics	3	3
MAJOR	Geog. 134	Introduction to Geography	3	
GE AREA II	Economics 151-152	Prin. of Economics I-II	3	3
GE AREA III	Language	Intermediate or Advanced	3	3
GE AREA V	Phil. 210	Ethics		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Hist. or Pol. Sci	Electives*	6	6
COGNATE	Electives	Electives	3	3
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA V	T/RS 122; Phil-T/RS	Theol. II; Electives**	3	3
GE FREE	Elective	Elective		3
			15	18
		SENIOR		
MAJOR	H/PS 390	Seminar		3
COGNATE	Electives	Electives	3	3
GE AREA I	Nat. Sci./Quant.	Elective	3	
GE AREA II	Social/Behavior	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS	T/RS Elective**	3	
GE FREE	Elective	Elective		3
			15	15

TOTAL: 127 credits

* Major electives to be selected from P.S. 213, P.S. 217, P.S. 218, P.S. 221, P.S. 222,P.S. 315, P.S. 316; H/P.S. 213, H/P.S. 214, H/P.S. 215, H/P.S. 227, H/P.S. 238, H/P.S. 295, H/P.S. 319, H/P.S. 320, H/P.S. 326, H/P.S. 338; Hist. 226, Hist. 234, Hist. 327, Hist. 335; Department recommends Hist. 140, Research Methods, for Junior International Studies majors.

** Department recommends Engl. 110 and Comm. 100 as Area III electives and T/RS 234 and 235 as AREA V electives. Department recommends cognate electives be used if needed to complete a language sequence up to the advanced level, otherwise, it is recommended that they be used for appropriate course sequences in the School of Management such as Mgt. 351-Mgt. 471, Mkt. 351, or additional course work in economics/finance, for which AREA II electives can also be applied.

MINORS A minor in Political Science (18 credits) should include Pol. Sci. 120, 121, 130 and 131, plus any two additional political science courses.

A minor in Public Administration (18 credits) should include P.S. 110, 111, 130 and 131 plus any two additional courses from the following P.S. 210, P.S. 211, P.S. 310, P.S. 325, P.S. 323, 240, P.S. 327 and P.S. 324.

A minor in International Studies (18 credits) should include History 110, 111, Pol. Sci. 130 and 131 plus two additional courses from the following: P.S. 212, P.S. 213, P.S. 217, P.S. 218, P.S. 221, P.S. 222, P.S. 312, P.S. 316; H/P.S. 214, H/P.S. 215, H/P.S. 227, H/P.S. 238, H/P.S. 295, H/P.S. 319, H/P.S. 320, H/P.S. 326, H/P.S. 327, H/P.S. 335, H/P.S. 338; Hist. 226, Hist. 234, and Hist. 235.

POL SCI 110 Dr. Harris
Introduction to Public 3 credits
Administration (Formerly P.S. 5) Introduction to the study of public bureaucracy. The growth of the administrative state, the role of bureaucracy in our democratic government, and the day-to-day operation of government bureaucracy are considered.

POL SCI 111 Dr. Champney
Introduction to Public Policy 3 credits
(Formerly P.S. 6) An analysis of public policy in the U.S., with an emphasis on the technical and political problems of policy formulation and implementation. Discussion of the impact of legislative, executive and judicial institutions and processes on the content of public policy.

POL SCI 120 Staff
Introduction to Political Science I 3 credits
(Formerly P.S. 11) An introduction to the major concepts, goals and philosophical foundations of political inquiry, including description of the scope of contemporary political science and its sub-fields.

POL SCI 121 Staff
Introduction to Political Science II 3 credits
(Formerly P.S. 12) Inquiry into political institutions and processes of industrial democracies; Communist state systems; and developing nations.

POL SCI 130-131 Staff
American National Government 6 credits
(Formerly P.S. 101-102) Discussion of the principles and processes of democratic government in America. The Constitution, federalism, structure, operations and functions of the branches of government.

POL SCI 210 Staff
State Government 3 credits
(Formerly P.S. 105) The natural constitutional position of the states and the changing federal-state relationships. State governments in actual operation. Emphasis on Pennsylvania and actual problems of procedure and policy.

POL SCI 211 Staff
Local Government 3 credits
(Formerly P.S. 106) Types and evolution of local government; constitutional and statutory limitations; functions of divisions; structure and operation.

POL SCI 212 Staff
International Relations 3 credits
(Formerly P.S. 111) A survey of workings in the nation-state system; power politics; equilibrium mechanisms; organizational functionalism; Third World.

POL SCI 213 Prof. Williams
Geopolitics 3 credits
(Formerly P.S. 140; recommended for background: GEOG. 134) A study of geographic factors in World History. Geographic factors in national power and international relations: an analysis of the role of "Geopolitics" with reference to the current world scene.

POL SCI 217 Dr. Dougherty
Comparative Government 3 credits
(Formerly P.S. 134) A representative sampling of foreign political forms and processes (including non-Western), as contrasted with those in the United States.

POL SCI 218 Dr. Parente
Comparative Communist Systems 3 credits
(Formerly P.S. 135) A study of the different Communist systems through out the world and how they relate to each other as well as to other types of government in the world.

POL SCI 221 Dr. Parente
Politics of South East Asia 3 credits
(Formerly P.S. 145) Domestic ethnic and religious politics of Southeast Asia and international politics affecting the region. The six ASEAN nations (Thailand, Indonesia, Malaysia, Phillipines, Singapore, and Brunei) and Burma, the region's only socialist country; the three communist states of Indochina: Vietnam, Laos, and Cambodia. The American, Soviet and Chinese spheres of influence. Capitalism versus state socialism as a lever of economic development.

POL SCI 222 Dr. Parente
Politics of the U.S.S.R. 3 credits
(Formerly P.S. 146) The political culture and institutions of the Soviet Union. Historical and geographical influences. Ethnic and religious politics; literary politics; foreign relations with Eastern European states and with China. Soviet-US relations; relations between Soviet communist party and foreign communist parties.

POL SCI 240 Dr. Champney
Political Science Statistics I 3 credits
(Formerly P.S. 133) Discussion of the principles, concepts and rationale which underlie the "scientific" approach to the study of political phenomena. Introduction to the quantitative and statistical research strategies which this approach has generated, including simple contingency table analysis, the chi squared statistic and the gamma statistic.

POL SCI 241 Dr. Champney
Political Science Statistics II 3 credits
(Formerly P.S. 136; prerequisite: P.S. 240) A detailed analysis of the quantitative and statistical research strategies which the "scientific" approach to the study of political phenomenon has generated, including simple correlation, partial correlation and multiple regression techniques.

POL SCI 280 Dr. Homer
Pre-Law Internship 3 credits

POL SCI 310 Dr. Dougherty
American Legislatures 3 credits
(Formerly P.S. 108) An investigation into the legislative process at both federal and state levels. Special attention is given to the structure for decision-making: partisan and interest-group influences; executive and judicial interactions.

POL SCI 311 Dr. Dougherty
Introduction to American Law 3 credits
(Formerly P.S. 110) An inquiry into the major theories of jurisprudence; development of American legal theory and practice; structure, functioning, and contemporary problems of the federal and state court systems.

POL SCI 312 Dr. Dougherty
Technopolitics 3 credits
(Formerly P.S. 130) An exploration of the rising importance of technology and access to resources as they impact on international relations.

POL SCI 313-314 Dr. Kocis
Western Political Thought 6 credits
(Formerly P.S. 114) The roles of the state and society, the auxiliary agencies and functions of government as viewed by political philosophers from Plato to Marx.

POL SCI 315 Dr. Kocis
Modern Political Thought 3 credits
(Formerly P.S. 115) A study of theoretical foundations of the three major political idea-systems identified with the twentieth century: communism, fascism and democracy.

POL SCI 316 Dr. Kocis
Jurisprudence 3 credits
(Formerly P.S. 117) An examination of the differences between "the law" and "the laws"; the nature of legal systems; the nature and grounds of political, moral and legal obligations, and the controversy between the traditions of Natural Law and Positive Law.

POL SCI 321 Dr. Dougherty
Leaders and Elites 3 credits
(Formerly P.S. 138) Information and analysis of political elites and their leadership behavior, drawn from pluralist, transitional, and structured societies.

POL SCI 322 Dr. Harris
Public Personnel 3 credits
(Formerly P.S. 183) An examination of public personal administration. Theories of organization, personnel policies, civil service history, and current issues in personnel administration are considered.

POL SCI 323 Dr. Dougherty
Administrative Law 3 credits
(Formerly P.S. 131) Administrative decision-making by quasi-legislative and/or quasi-judicial agencies, legally protected rights of persons and corporate entities; appellate review of administrative determinations; use of case method.

POL SCI 324 Dr. Champney
Public Policy Analysis 3 credits
(Formerly P.S. 186) Analysis of the functions and methods of the public sector and a discussion of the effect of public sector activities on society and the economy of the United States. Particular emphasis is placed on "public problem vs. private problems" and on the desirable scope of governmental activities in a free society.

POL SCI 325 Dr. Harris
Politics of the Budgetary Process 3 credits
(Formerly P.S. 112) Public budgeting in theory and in practice is discussed, Historical reforms and the inevitable politics of the process are considered. Use of budget simulations allow for practical experience.

POL SCI 380-381 Staff
Political Science Internship 3-6 credits
(Formerly P.S. 195) Designed to broaden the educational experience of students by providing practical experience for them with various law firms, public agencies and institutions. Supervision by faculty member and agency supervisor.

POL SCI 384 Staff
Special Topics in Political Science 3 credits
(Formerly P.S. 127) Study and analysis of selected topics in the field of Political Science. The particular topic or topics will vary from year to year depending on the instructor and changing student needs.

POL SCI 480 Dr. Champney
Public Administration Internship I 3 credits
(Formerly P.S. 193; permission of faculty advisor and Dr. Champney required for internship registration.)

POL SCI 481 Dr. Champney
Public Administration Internship II 3 credits
(Formerly P.S. 194; permission of faculty advisor and Dr. Champney required for internship registration.)

H/PS 214 Dr. DeMichele
World Politics 3 credits
(Formerly H/PS 176) Deals directly with the political, economic, and social issues that are current in international affairs including the future possibilities of world order and the crises of foreign policy-making.

H/PS 215 Dr. Homer
War and Modern Society 3 credits
(Formerly H/PS 148) Role of military force in international relations; historical background focusing on wars, American and European, of 19th and 20th centuries; theories of function of war; arms control and deterrence of war.

H/PS 216 Dr. Harris
Gender and the Workforce 3 credits
(Formerly H/PS 154) Historical, legal, and political perspectives of the movement of women into the workforce. The difficulties confronted by men and women on the job and in the family as women become a vital part of the workforce are discussed. Focus on major problems which continually confront world in modern times. U.S. problems emphasized; war, violence, poverty, ecology.

H/PS 220 Dr. Feller
Saving America's Past 3 credits
(Formerly H/PS 103; see description under History)

H/PS 225 Drs. Earl, DeMichele
Ethnic & Racial Minorities in Northeastern Pennsylvania 3 credits
(Formerly H/PS 188; see description under History.)

H/PS 227 Dr. Earl
Soviet Foreign Policy 3 credits
(Formerly H/PS 152) Examination of the course of Soviet Foreign Policy from 1917 to present. Analysis of forces, factors and motives that have molded Soviet history and its relations with other nations.

H/PS 295 Dr. DeMichele
Britian: Past and Present 3 credits
(Formerly H/PS 128; see description under History.)

H/PS 317-318 Staff
American Constitutional and Legal History 6 credits
(Formerly H/PS 122-123; recommended for Background: History 110-111; H/PS 317 is prerequisite for H/PS 318) The juridicial concepts of the colonial and revolutionary periods; backgrounds of the Federal Convention; the nature of the constitution, its interpretation by Marshall and Taney. The constitutional problems occasioned by the Civil War, the new amendments; the role of the States in a Federalist system. Key cases will be analyzed in detail and set in their proper historical perspective.

H/PS 319-320 Dr. Hueston
American Diplomatic History 6 credits
(Formerly H/PS 120-121; see description under History.)

H/PS 326 Dr. Parente
Modern China 3 credits
(Formerly H/PS 181; see description under History.)

H/PS 327 Dr. Parente
Modern Japan 3 credits
(Formerly H/PS 183) The history and politics of Japan. The period of the shoguns, the reforms of the modernizing Meiji era at the end of the 19th century. The Japanese effort to conquer Asia. The postwar political structure. Is Japan a democracy? The economic miracle of the present.

H/PS 331 Dr. DeMichele
English Constitutional and Legal History to 1485 3 credits
(Formerly H/PS 142) Anglo-Saxon basis, fusion of Anglo-Saxon and Norman political institutions; Angevin innovations; Magna Carta; concept of representation; beginnings of the Common Law; jury system; content for government; emergence of Parliament; the refinement of government.

H/PS 332 Dr. DeMichele
English Constitutional and Legal History, 1485 to Present 3 credits
(Formerly H/PS 143) Tudor absolutism; struggle between royal prerogative and Parliament; rise of the House of Commons; Parliamentary supremacy after 1688; development of Cabinet government; democratic reforms; Parliamentary Bill of 1911; extension of administrative law.

H/PS 338 Dr. Parente
Politics of Islam 3 credits
(Formerly H/PS 129) The political ideology of Islam; the political content of the Koran; the effort to establish theocracies in a number of states from Iran to Egypt to Malaysia and Indonesia; Islam as a political opposition in such countries as the Phillipines, USSR, and China; Shiite versus Sunni sects; the politics of Israel and the Islamic states of the Middle East; OPEC; the Palestinian question; political terrorism; Islam as an expansionist ideology.

H/PS 390 Prof. Williams
Seminar in International Studies 3 credits
(Formerly H/PS 180; prerequisite: Hist. 140) Required for International Studies majors. Other advanced undergraduates may take course with permission of the professor.

GEOG. 134 Dr. Conover
World Regional Geography 3 credits
(Formerly Geog. 112) Introduces the major concepts and skills of geography. A regional approach stressed the five themes of geography including location, place, human environment interaction, movement, and region.

Human rights activist Natan Sharansky speaks at the T. Linus Hoban Memorial Forum.

PSYCHOLOGY

DR. NORCROSS, *Chairperson*

Psychology provides a unique educational experience of quality, breadth, and flexibility. Our curriculum has been carefully designed to give students a balanced education in the discipline and the widest range of options, from baccalaureate entry-level positions to graduate training in prestigious universities. According to a recent independent study, the number of our graduates who have gone on to receive doctorates in psychology has placed us in the top 20% of comparable institutions nationally.

Psychology majors are required to take Psych. 110, Psych. 210, and Psych. 330 with lab. Students also take a minimum of 5 courses from the following list with at least one course in each group: Physiological Processes (230, 231), Learning Processes (234, 235), Social-Developmental Processes (220, 221), and Individual Processes (224, 225). Students are free to choose from any of these or the remaining psychology courses to fulfill the 4 additional course requirements in the major. Completion of two optional psychology labs constitutes an elective course. Students are encouraged to take Psych. 493-494, Undergraduate Research, in their junior or senior year.

The Psychology Department encourages students to tailor their programs to their own needs and interests. For example, students interested in marketing, personnel, or industrial-organizational psychology may elect a special Business Minor and recommended courses in psychology. Integrated programs and dual majors are also available with a number of other departments.

The Clinical Track in psychology is a structured sequence of courses providing a synthesis of scientific knowledge, interpersonal development, and clinical experience. The track is designed for psychology majors seeking entry level employment or graduate training in clinical, counseling, community, or school psychology. The required courses are: Psych. 225; HS 311; Psych. 360; Psych. 335; Psych. 480; and one from Psych. 284, HS 421, HD 335, and HD 234. Consult your advisor and the **Psychology Handbook** for details.

The Biopsychology Track provides curricular direction and awards transcriptable recognition to psychology majors interested in the biological bases of behavior. The track requires: Psych. 221; Psych. 225; Psych. 231 with lab; two Psychology courses with labs; Biol. 140-141; three elective Biology courses; and Chem. 112-113. Students are strongly encouraged to take Math 114 to meet the department's math requirement.

MINOR. A minor in psychology consists of Psych. 110, Psych. 210 (or an equivalent statistics course), Psych. 330 Lecture, one Psychology elective, and one course from 3 of the following 4 groups: Physiological Processes (230, 231), Learning Processes (234, 235), Social-Developmental Processes (220, 221), and Individual Processes (224, 225). Total: 21 credits.

PSYCH. 110 Staff
Fundamentals of Psychology 3 credits
(Formerly Psych. 23) An introduction to the scientific study of behavior through a survey of psychology's principal methods, content areas, and applications. Course requirements include participation in psychological research or preparation of a short article review.

PSYCH. 210 (Area I) Drs. Cannon,
Psychological Statistics Dunstone, Hogan
3 credits
(Formerly Psych. 24) An introduction to the basic statistics used in the behavioral sciences, including descriptive statistics, correlation, sampling, hypothesis testing, and inferential statistics.

PSYCH. 220 Dr. Baril
Social Psychology 3 credits
(Formerly Psych. 148; prerequisite: Psych. 110) Social determinants of behavior from a psychological perspective. Topics include affiliation, conformity, persuasion and attitude change, person perception.

PSYCH. 221 Dr. Buchanan
Childhood and Adolescence 3 credits
(Formerly Psych. 144; prerequisite: Psych. 110) Survey of psychological research dealing with the development and behavior of children from infancy to adolescence. The physical, cognitive, and social aspects of development, from infancy to adolescence, are considered.

PSYCH. 222 Dr. Buchanan
Adulthood and Aging 3 credits
(Formerly Psych. 155; prerequisite: Psych. 110) Survey of the psychological research dealing with the age-graded aspects of behavior in adulthood. Course will consider the physical, cognitive, and social aspects of the aging process from late adolescence to death. Topics include occupation selection, marriage, parenthood, middle age, retirement, and dying.

PSYCH. 224 Staff
Personality 3 credits
(Formerly Psych. 126; prerequisite: Psych. 110) A survey and critical evaluation of personality and its implications for assessment, psychotherapy, and research.

PSYCH. 225 Drs. Alford, Norcross
Abnormal Psychology 3 credits
(Formerly Psych. 145; prerequisite: Psych. 110) A comprehensive survey of mental and behavioral disorders from biological, psychological, and sociocultural perspectives. The course will consider diagnosis and labeling, overview of specific disorders, and various treatment approaches.

PSYCH. 230 (Area I) Dr. O'Malley
Sensation and Perception 3-4 credits
(Formerly Psych. 142; prerequisite: Psych. 110) Concerns the study of sensory mechanisms and perceptual phenomena. Optional lab entails supervised individual experimentation. Three credits lecture and optional one credit laboratory. Lab fee

PSYCHOLOGY

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Psych. 110-Elective	Fund. of Psych.-Elective	3	3
COGNATE	Math 109-Elective	Math-Elective	4	3
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120-T/RS 121	Intro. to Phil.-Theol. I	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			17	16
		SOPHOMORE		
MAJOR	Psych. 210-330	Statistics-Research Methods	3	5
MAJOR	Psychology	Elective-Elective	3	3
COGNATE	Science Electives**	Elective-Elective**	3	3
GE AREA II	Soc. 110*-Elective	Prin. of Soc.*-Elective	3	3
GE AREA III	Engl. 111*	Technical Writing*	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	15
		JUNIOR		
MAJOR	Psychology	Electives-Electives	6	9
COGNATE	Elective	Electives	3	6
GE AREA II	Elective*	Elective*	3	
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 210	Ethics	3	
			18	18
		SENIOR		
MAJOR	Psychology	Elective	3	
COGNATE	Elective	Elective		3
GE AREA II	Elective*	Elective*		3
GE AREA IV	Elective	Electives	3	3
GE AREA V	T/RS 122-T/RS-PHIL.	Electives	3	6
GE FREE	Electives	Electives	6	3
			15	18
			TOTAL:	133 credits

* The Department recommends that students acquire a broad background in Area II by selecting courses from at least two departments in the social/behavioral sciences and that students strengthen their writing skills by completing a second writing course. The Psychology faculty strongly recommends Sociology 110 and English 111 in particular. Unless exempt from the University requirement, students must take Communication 100.

** Combinations of Biol. 101 & 102, or Biol. 201 and another science elective are required.

PSYCH. 231 (Area I) Dr. Cannon
Biopsychology 3-4.5 credits
(Formerly Psych. 147; prerequisite: Psych. 110) Introduction to the field of neuroscience examining the cellular bases of behavior, effects of drugs on behavior, brain/body correlates of motivation and emotion, and neural changes accompanying pathology. Three hours lecture; the optional 1.5 credit laboratory requires surgical procedures involving animals. Lab fee.

PSYCH. 234 Dr. Buchanan
Cognitive Psychology 3-4 credits
(Formerly Psych. 154; prerequisite: Psych. 110) This course will consider a number of approaches to the study of human cognitive processes with an emphasis on the information processing model. Topics include pattern recognition, attention, memory, imagery, concepts and categories, and problem solving. Three credits lecture with optional one credit laboratory. Lab fee.

PSYCH. 235 (Area I) Dr. Dunstone
Conditioning and Learning 3-4.5 credits
(Formerly Psych. 143; prerequisite: Psych. 110) Concerns the experimental study of both classical and instrumental conditioning. Optional lab involves supervised animal and human experimentation. Three credits lecture and optional 1.5 credit laboratory. Lab fee.

PSYCH. 236 Dr. Baril
Industrial/Organizational Psychology 3 credits
(Formerly Psych. 149; prerequisite: Psych. 110) The psychological study of people at work. Topics include personnel selection and training, motivation, leadership, the physical work environment, and consumer behavior.

PSYCH. 237 Drs. Williams-Quinlan & Norcross
Psychology of Women and Men 3 credits
(Formerly Psych. 152; prerequisite: Psych. 110) Explores the biological, sociological, and cultural influences on the psychology of women and men. Psychological aspects of gender socialization, sexual identity, and sex roles are considered. Topics include communication between the sexes, intimate relationships, and differing implications of gender for mental health.

* * *

Special Topics in Psychology courses are developed by individual faculty to provide in-depth coverage of a specific area in psychology. Prerequisites are Psych. 110 and at least sophomore status. This course may only be used once to satisfy major elective requirements.

PSYCH. 284 Drs. Norcross and Cannon
Special Topics:
Behavior Modification 3 credits
(Formerly Psych. 170)

PSYCH. 284 Dr. O'Malley
Special Topics:
Sports Psychology 3 credits
(Formerly Psych. 170)

PSYCH. 284 Dr. Cannon
Special Topics:
Psychopharmacology 3 credits
(Formerly Psych. 170)

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PSYCH. 330 Drs. Baril, Cannon
Research Methods in the
Behavioral Sciences 5 credits
(Formerly Psych. 30; prerequisites: Psych. 110 & 210) A survey of scientific method and research design in the behavioral sciences. Topics include single subject, survey, correlational and experimental research. Labs involve computerized data analyses, scientific writing, and supervised research. Three credits lecture, two credits laboratory. Lab fee.

PSYCH. 335 Dr. Norcross
Psychological Testing 3 credits
(Formerly Psych. 141; prerequisites: Psych. 110 & 210) Provides a thorough grounding in principles of testing and a review of the major types of assessment, including intellectual, personality, and interest.

PSYCH. 360 Dr. Norcross
Clinical Psychology 3 credits
(Formerly Psych. 157; prerequisites: Psych. 110 & 225) An overview of contemporary clinical psychology focusing on its practices, contributions, and directions. Topics include clinical research, psychological assessment, psychotherapy systems, community applications, and emerging specialties, such as health and forensic psychology.

PSYCH. 370 Dr. O'Malley
History and Systems
of Psychology 3 credits
(Formerly Psych. 151; prerequisite: Psych. 110) Historical origins of various schools of thought and current views in psychology. Philosophical as well as empirical traditions are emphasized.

PSYCH. 480 Drs. Norcross, Alford
Field Experience in
Clinical Psychology 3 credits
(Formerly Psych. 158; prerequisites: Psych. 360, HS 311, and permission of instructor) This course entails supervised field experience in a mental health or social service facility in the community. Students are required to spend 8 hours a week at their placement and 1.5 hours a week in a seminar throughout the semester. Limited to juniors and seniors.

PSYCH. 481 Dr. Baril
Field Experience in
Personnel Psychology 3 credits
(Formerly Psych. 150; prerequisites: Psych. 236 & 335, Mgt. 361, and permission of the instructor) This course entails supervised field experience in a personnel office. Students are required to spend 10 hours a week at their placement and one hour periodically throughout the semester in a seminar. Limited to juniors and seniors.

PSYCH. 493-494 Staff
Undergraduate Research 3-6 credits
(Formerly Psych. 160-161; prerequisites: Psych. 330 and permission of professor) Individual study and research on a specific topic under the supervision of a faculty member. Students are expected to spend a minimum of 10 hours a week on research activities throughout the semester. Limited to juniors and seniors.

SOCIOLOGY

PROF. PRYLE, *Chairperson*

Courses in Sociology seek to provide both the terminal student and the prospective graduate student with a basic understanding of the forces that are part of the social processes. In addition, the courses are designed to help the student interested in the field of Social Work, Human Services, etc., to attain a pre-professional orientation to these fields.

Students interested in Urban Planning are advised to include Soc. 116, 224, and 231 in their planning; for Social Work, Soc. 234, 115, 116, 118, and 224; for Medical Services/Administration, Soc. 216, Gero. 212, 216, 218 and 230; for Personnel Relations/Administration, Soc. 226, 227, and 228.

The Department of Sociology/Criminal Justice also administers the Criminal Justice major described earlier and the Gerontology major described after Sociology.

	Dept. and No.	Descriptive Title of Course	Credits	
		FRESHMAN	FALL	SPRING
MAJOR	Soc. 110-112	Principles—Social Problems	3	3
COGNATE	Psych. 110	Fundamentals of Psychology	3	
GE AREA I	Nat. Sci./Quant.	Elective *		3
GE AREA III	Communications	Electives *	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Soc. 317-318	Hist. of Sociological Thought I-II	3	3
MAJOR	Sociology	Electives	3	3
COGNATE	H/HS 111-Soc. Sci. Elective	Foundations of Human Services-Soc. Sci. Elective	3	3
GE AREA III	Communications	Elective	3	
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122	Theology II		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Soc. Elec.	Sociology Electives	3	3
COGNATE	Pol. Sci.	Political Science Elective	3	
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. T/RS	Phil and/or Religious Studies	3	3
GE FREE	Electives	Electives	3	3
			18	15
		SENIOR		
MAJOR	Soc. 480, 481 */Elecs.	Internship/Elective	3	3
COGNATE	Soc. Sci. Elec.	Electives	6	6
GE AREA IV	Humanities	Electives	3	3
GE FREE	Electives	Electives	3	3
			15	15
			TOTAL:	127 cred

* Department Recommendation

In GE AREA I, the department recommends Biology 101 and 102, 103 and 104, Nursing 100. In GE AREA III, the department recommends Comm. 100, Engl. 110, and CMPS. 104. In the COGNATE Social Science Electives, the department recommends a mix of Human Services, Criminal Justice, Gerontology, and Psychology electives, especially Psych. 224: Personality; Pol. Sci. 240: Statistics I; and S/CJ 212: Criminological Research.

GERONTOLOGY

The degree program in Gerontology has the following objectives:

1. to understand the processes of aging;
2. to prepare for careers in agencies and institutions serving the older adult, such as Area Agencies on Aging, Family Services, Long Term Care facilities, Telespond, etc;
3. to provide a liberal gerontology education with special emphasis on the development of the whole person;
4. to provide students with academic preparation for advanced study in gerontology, social work, public administration, social welfare, and related fields.

The Scranton area is especially suited to serve as a laboratory setting for gerontology education with its high proportion of older adults and its many agencies and facilities for the same.

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	Soc. 110-Gero 110	Principles of Soc.-Intro to Gerontology	3	3
COGNATE	Psych. 110-HADM 112	Fundamentals of Psych.-Health Systems	3	3
GE AREA I	Nat. Sci./Quant.	Elective		3
GE AREA III	Communications	Electives	3	3
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	Gero. 230	Social Policy and Aging	3	
MAJOR	Gero. 232	Aging and Death		3
MAJOR	Gerontology	Electives	3	3
COGNATE	H/HS 311-Soc. 228	Case Management—Social Psychology	3	3
GE AREA III	Communications	Elective	3	
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil. 210	Ethics		3
GE AREA V	T/RS 122	Theology II		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Gero. 218-Elec.	Health and Aging—Elective	3	3
COGNATE	Psych. 222	Adulthood & Aging	3	
COGNATE	Soc. 224	American Minority Groups		3
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil-T/RS Elec.	Electives	3	3
GE FREE	Elective	Elective	3	
			18	15
		SENIOR		
MAJOR	Gero. 480, 481 */ Elecs.	Internship/Elective	3	3
MAJOR	Gerontology	Electives	3	3
COGNATE	Soc. Sci. Elec.	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE FREE	Electives	Electives	3	3
			15	15
			TOTAL:	127 credits

* Department Recommendation—The Gerontology Internship may be taken in either the junior or senior years, or both (not to exceed a maximum of six credits of internship).

In GE AREA I, the department recommends Biol. 101, 102, 103, 104, 201, 202 and NURS. 100: Family Health. In GE AREA III, the department recommends Comm. 100 and Engl. 110. In the COGNATE as Social Science Electives, the department recommends H/HS 312, 411, 221, 122; Sociology 112, 116, 115, 216.

MINORS

SOCIOLOGY. A minor in Sociology will require fifteen credits in sociology. There are two required courses: Soc. 110: Principles of Sociology, and Soc. 318: History of Sociological Thought II. The following elective courses are strongly recommended in the sociology sequence: Soc. 234: Cultural Anthropology, Soc. 231: Urban Sociology, Soc. 224: American Minorities, and Soc. 226: Sociology of Work and Professions.

GERONTOLOGY. A minor in Gerontology will require eighteen credits. There are three required courses: Soc. 110: Principles of Sociology; Gero. 110: Introduction to Gerontology; and Gero. 230: Social Policy and Aging. The following elective courses are strongly recommended by the department in the gerontology sequence: Gero. 218: Health and Aging; Gero. 216: Aging and the Community; Gero. 212: Aging & the Life Cycle; Gero. 232: Aging and Death.

SOC. 110 Staff
Principles of Sociology 3 credits
(Formerly Soc. 21) Fundamental principles in the field of sociology. Stratification, ethnicity, deviance; basic institutions of society; social change and demographic trends.

SOC. 112 Staff
Social Problems 3 credits
(Formerly Soc. 22) Application of sociological principles to major issues in contemporary society.

SOC. 115 Prof. Pryle
Introduction to Social Work 3 credits
(Formerly Soc. 109) Growth of social work as a professional endeavor. The scope of social work; casework in the medical, psychiatric, family and child welfare, and guidance fields, community organization, social research,social planning, social group work. Current trends in social work.

SOC. 116 Prof. Pryle
Community Organization 3 credits
(Formerly Soc. 106) A general introduction to the field and process of community organization, both as a field of social work and as a field of human endeavor. The coordination and financing of welfare activities, methods of appraising community needs and resources, planning and the initiation of welfare services. Services of a voluntary and governmental nature, strategies of power.

SOC. 118 Prof. Pryle
Child Welfare 3 credits
(Formerly Soc. 107) Development of child welfare in the United States. Educational, health, recreational and child labor regulations. Study and treatment of children in their own homes, foster homes and institutions. Child care and protective programs on federal, state and local levels.

SOC. 210 Drs. Rielly, Rynn
Marriage and the Family 3 credits
(Formerly Soc. 110) An historical, comparative, and analytical study of marriage and family institutions. Problems of courtship, mate selection, and marriage adjustment in modern society.

SOC. 212 Prof. Pryle
Religion and Society 3 credits
(Formerly Soc. 121) A survey of religious systems and their interrelations with society and social institutions, with emphasis on the social consequences and determinants of religious behavior. The theories of Durkheim, Weber, Parsons, Bellah, Berger and Luckman will be examined.

SOC. 214 Dr. Talamini
Sociology of Sport 3 credits
(Formerly Soc. 124) The role of sport in civilized societies; sport as work and recreation; women and minorities in sport; sport in education; sport and the mass media.

SOC. 216 Prof. Pryle, Dr. Talamini
Medical Sociology 3 credits
(Formerly Soc. 127) The social dimensions of health and illness; role of physician, nurse and patient; social organization of health services; the content of medical practice; culture and health disorders; mental health and mental illness.

SOC. 224 Drs. Rynn, Rielly
American Minority Groups 3 credits
(Formerly Soc. 114) Patterns of adjustment between ethnic and racial groups, with special attention given to the American scene. Prejudice and discrimination as opposed to the democratic ideology.

SOC. 226 Dr. Talamini
Sociology of Work and Professions 3 credits
(Formerly Soc. 115) The nature and role of contemporary professions, occupational choice, career patterns and occupational mobility; the relationship between education, occupation, profession and aspirations.

SOC. 227 Dr. Rynn
Business and Society 3 credits
(Formerly Soc. 150) Modern industrialism as social behavior. Social conditions in the rise of industrialism and their effect on the worker; collective bargaining and industrial conflict, the industrial community; social classes and the industrial order. This course will also show how the business sector impacts on society and on the globalization of the economy.

SOC. 228 Dr. Rynn
Social Psychology 3 credits
(Formerly Soc. 148) Study of individual behavior as affected by cultural and social stimuli. Emphasis on the analysis of human conduct in social settings.

SOC. 229 Fr. Conlin
Crisis in Population 3 credits
(Formerly Soc. 119) A study of the basic variables of population, birth, death and migration, socio-economic and cultural variables affecting population, growth, projections and forecasts. The chief natural and social demographic theories. Population policies and practices in selected world areas.

SOC. 231 Prof. Pryle, Fr. Conlin
Urban Sociology 3 credits
(Formerly Soc. 111) Urban ecology and culture as the dominant form of community life in contemporary society; their characteristics, peculiarities, and problems.

SOC. 234 Drs. Rielly, Rynn
Cultural Anthropology 3 credits
(Formerly Soc. 104) Cultural and social organization among primitive or preliterate societies; marriage, property, religion, magic and tribal control. Significance of the study of primitive cultures for understanding of urban industrial civilizations.

SOC. 235 Dr. Rynn
Peoples of East Asia 3 credits
(Formerly Soc. 135) The anthropology of the East Asian culture area, focusing particularly on China and Japan. Topics include basic social institutions, worldviews, culture and personality, and the problem of modernization.

SOC. 284 Staff
Special Topics in Sociology
Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum. Prerequisite: consent of the Chairperson and the Instructor.

SOC. 317 Fr. Conlin
History of Sociological Thought I 3 credits
(Formerly Soc. 117) Background and development of sociology with emphasis upon the men and ideas that strongly influenced the discipline; particular emphasis on the works of Comte, Durkheim, Weber, Simmel, Pareto and Marx, and on the social context in which they originated.

SOC. 318 Fr. Conlin
History of Sociological Thought II 3 credits
(Formerly Soc. 118) An examination of major current theoretical developments in sociological theory and a critical review of theories of leading contemporary sociologists.

SOC. 382-383 Staff
Independent Study in Sociology 3 credits
(Formerly Soc. 191-192) Designed for advanced students who are capable of independent study. A program of planned research under the guidance of a faculty member. Registration upon approval of Chairperson and Instructor.

SOC. 480-481 Dr. Rielly
Internship in Social Work 3 credits
(Formerly Soc. 198-199) Practicums designed to broaden the educational experience of students through practical experience and work assignments with governmental and/or community agencies in the field of social work. Supervision by a faculty member and agency supervisor. Limited to juniors and seniors. Prerequisite: permission of Instructor.

H/SO 132 Dr. Feller
Introduction to Archaeology 3 credits
(Formerly Soc. 134) An introduction to the study of archaeology from anthropological and historical perspectives. Areas to be explored include survey and site recognition, excavation planning, record keeping, treatment of artifacts and above-ground archaeology.

Approved courses from other curricula: Sociology majors may be advised to choose several courses taught in the Criminal Justice sequence—courses so approved include:

S/CJ. 210 Law and Society
S/CJ. 213 Criminology
S/CJ. 214 Juvenile Delinquency
S/CJ. 218 The American Court System
S/CJ. 220 Penology: Corrections
S/CJ. 221 Probation & Parole
S/CJ. 224 Sociology of Deviance
S/CJ. 225 White Collar Crime
S/CJ. 227 Organized Crime Patterns
S/CJ. 317 Trial, Jury and Counsel
S/CJ. 324 Victimology

GERONTOLOGY COURSES

GERO. 110 Dr. Rielly, Prof. Pryle
Introduction to Gerontology 3 credits
(Formerly Gero. 101) A multi-disciplinary examination of the cognitive and affective aspects of the aging process. The course covers the social, physiological, psychological, economic, and health aspects of aging, as well as service delivery systems. It explores planning and action strategies aimed at enhancing the quality of life, and providing more adequate benefits and services for the older adult.

GERO. 112 Dr. Rielly, Dr. Talamini
Social Problems of Aging 3 credits
(Formerly Gero.122) This course is devoted to a study of the specific problems of the aged in American society, with particular attention at both individual and societal levels to issues of age, inequality in opportunities and re-wards; of mental health, housing, minorities, and institutions; of crime and fear of victimization; of economic status, work, leisure, and retirement; of attractiveness, aging and sexuality; of drugs, doctors, nursing homes and hospitals.

GERO. 210 Dr. Rynn
Aging in Anthropological Perspective 3 credits
(Formerly Gero. 110) A cross-cultural approach looking at the ways in which a variety of societies deal with aging and the aged. The issues of work, economics, other types of expertise, and different definitions of the aged are analyzed.

GERO. 212 Dr. Talamini
Aging and the Life Cycle 3 credits
(Formerly Gero. 112) Rites of passage, age norms, and role rehearsals for life transitions, the life cycle in comparative cultures; sociological dimensions of adulthood and aging concerning the work cycle, sport and leisure development, patterns of consumer behavior and life style, and the family cycle.

GERO. 214 Mr. Germain
Aging and Human Behavior 3 credits
(Formerly Gero. 109) A critical examination of life satisfaction in old age; the social and psychological factors which affect it; factors contributing to the psychological well-being of older adults as a function of their position in the social system.

GERO. 216 Prof. Pryle
Aging and the Community 3 credits
(Formerly Gero. 107) Consideration of selected community strategies effecting desired changes in the development and implementation of social services and programs for the elderly: legislative action, interagency relationships, the citizen role.

GERO. 218 Mr. Germain
Health and Aging 3 credits
(Formerly Gero. 103) An explorative study of the mental and physical health problems prevalent in the older adult population, with emphasis upon the preventive aspect of health care as applied by themselves and health care providers. Health care approaches appropriate to the various problems, and relevant resources within the home and community are considered.

GERO. 220 Atty. Cimini
Crime and Aging 3 credits
(Formerly Gero. 106) A consideration of crime as it affects aging; examining the older adult as victim, offender, practitioner, and perpetrator, in light of current thought, policy, and law.

GERO. 230 Prof. Pryle
Social Policy and Aging 3 credits
(Formerly Gero. 105) Review of major legislation affecting older adults, including Social Security Act, Older Americans Acts, Medicare, and various local, state, and national programs for the aged.

GERO. 232 Dr. Rielly
Aging and Death 3 credits
(Formerly Gero. 126) This course offers the student an opportunity to explore the mystery and meaning of death. Focus is on a number of aspects of dying and the death process, such as the dying individual and the family; cross-cultural perspectives; terminal illness; professions and death; rites and rituals.

GERO. 284 Staff
Special Topics in Gerontology
Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum. Prerequisite: consent of the Chairperson and the Instructor.

GERO. 382-383 Staff
Independent Study in Gerontology 3 credits
(Formerly Gero. 191-192) Designed for advanced students who are capable of independent study. A program of planned research in gerontology under the guidance of a faculty member. Registration upon approval of Chairman of the department and the instructor directing the study.

GERO. 480/481 Dr. Rielly
Internship in Gerontology 3 credits
(Formerly Gero. 198-199) Supervised experiential learning in one or more organizations that serve older adults. Supervision by a faculty member and agency supervision required. Limited to juniors and seniors. Prerequisite: permission of instructor.

THEOLOGY AND RELIGIOUS STUDIES

FR. ROUSSEAU, S.J., *Chairperson*

The religious dimension of human life is of such importance that it is necessary to explore it in a liberal arts curriculum.

The General Education requirement for all students at the University is six credit hours in theology. This is fulfilled by T/RS 121-122, a two-semester introductory sequence. Additionally, students must take another six hours in either philosophy or theology/religious studies to complete the GE AREA V requirements. Among other courses, the department offers T/RS 229, Jewish Theological Thought, and T/RS 228, The Protestant Faith, which are taught, respectively, by a Jewish rabbi and Protestant minister.

The Bachelor of Arts degree in Theology/Religious Studies requires 30 credits in the major including the introductory courses required of all students. To ensure a well rounded background in the discipline, each major must take at least one course in each of the 4 categories listed below. Each major is expected to confer with the departmental chairperson for the selection and balancing of courses. The department also offers a double major program compatible with most other majors. It has similar requirements.

Departmental Courses are grouped into the following categories.

Biblical (XX1-X09)	Historical(X10-X19)
Systematic(X20-X29)	Moral (X30-X39)

T/RS 121-122 Staff
Theology I-II 3-3 credits
(Formerly T/RS 21-22) A two-semester introduction to theology. The first semester course focuses on Bible and Tradition, studying key books and themes of the Old and New Testaments, as well as major developments in the history of Christian thought. The second semester course focuses on Creed and Practice, surveying major elements of systematic theology (e.g., Creation and Redemption) and Christian life (e.g., The Sacraments and Morality).

T/RS 200 Dr. Steele
Inside the Old Testament 3 credits
(Formerly T/RS 100) An introduction to and readings in the whole range of Old Testament literature with special attention to its literary form, historical context, and levels of meaning.

T/RS 201 Staff
Inside the New Testament 3 credits
(Formerly T/RS 101) An introduction to and readings in the whole range of New Testament literature with special attention to its literary form, historical context, and levels of meaning.

T/RS 204 Dr. Frein, Fr. Barone
Pauline Letters 3 credits
(Formerly T/RS 111) An introduction to the writings of the Apostle Paul, exploring Jewish and Greco-Roman influences on his letters as well as his contribution to basic Christian beliefs and practices.

T/RS 205 Fr. Barone
The Gospels and Jesus 3 credits
(Formerly T/RS 112) An historical-critical study of the synoptic gospels. The historical figure of Jesus of Nazareth as perceived in the resurrection faith of the early Christian communities. Film and slide presentations of archaeological discoveries relevant to New Testament era.

T/RS 206 Dr. Frein
The Four Gospels 3 credits
A study of the four Gospels from the perspectives of history, theology, and literature.

T/RS 210 Fr. Rousseau, S.J.
The Christian Religious Tradition 3 credits
(Formerly T/RS 151) A study of the vital growth of Christianity's life, doctrine, worship and spirituality over the centuries. Special emphasis will be placed on principal leaders, thinkers and heroes.

T/RS 211 Dr. Benestad
Great Books I: 3 credits
Perspectives on Western Culture
(Formerly T/RS 153) The religious, philosophical and political writings of major thinkers of the Western tradition. The first semester includes the study of the Bible, Aristotle's Ethics, Plato's Apology, Augustine's City of God, and the thought of Aquinas. Emphasis is on the study of these works as they illuminate the current world. The second semester description is found under Phil. 159.

T/RS 212 Fr. Linehan, S.J.
Saints and Holiness 3 credits
(Formerly T/RS 157) An inquiry into the nature of Christian sanctity by an examination of the lives and accomplishments of traditional saints and of contemporary persons who respond to the Gospel message.

T/RS 213 Fr. Sable, S.J.
American Catholic Thought 3 credits
(Formerly T/RS 158) The major themes of American Catholic tradition from colonial times to the present are placed in their historical, religious, social and political context.

T/RS 214 Fr. Linehan, S.J.
European Catholic Thought 3 credits
(Formerly T/RS 150) The major themes in the development of thought in Catholic Western Europe from the Reformation through the twentieth century in their historical, religious, social, and political context.

T/RS 215 Fr. Linehan, S.J.
Monks in Civilization 3 credits
(Formerly T/RS 156) The monastic tradition and its influence on the Church from its desert origins through the era of Benedict and his Rule and its development through the lives of such figures as Dominic, Francis, Ignatius and Vincent dePaul up to modern times.

THEOLOGY/RELIGIOUS STUDIES

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	T/RS 121-122	Theology I/Theology II	3	3
COGNATE	Electives	Electives	3	3
GE AREA I	Nat. Sci./Quant.	Elective		3
GE AREA II	Social/Behavior	Elective	3	
GE AREA III	Communication	Elective	3	3
GE AREA V	Phil. 120	Introduction to Philosophy		3
GE FREE	Elective	Elective	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	T/RS	Second Year Electives	3	3
COGNATE	Electives	Electives	3	3
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA II	Social/Behavior	Electives	3	3
GE AREA III	Communication	Elective	3	
GE AREA V	Phil. 210	Ethics		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	T/RS	Electives	6	6
COGNATE	Electives	Electives	3	3
GE AREA II	Social/Behavior	Elective	3	
GE AREA IV	Humanities	Electives	6	6
			18	15
		SENIOR		
MAJOR	T/RS	Electives	3	3
COGNATE	Electives	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Philosophy	Philosophy Electives	3	3
GE FREE	Electives	Electives	3	3
			15	15

TOTAL: 127 credit

MINOR: The minor in T/RS requires 12 credits beyond the introductory sequence, preferably spread over several areas.

T/RS 220 Fr. Begley, S.J.
Spirituality:
Liturgy and Sacraments 3 credits
(Formerly T/RS 129) A basic course in sacraments which will explore the human religious experience of the faith community and its expression in sacramental celebration. Two features of the Rite of Christian Initiation of Adults, its process orientation and the role of the community, will serve as basis for the examination of new sacramental models. Throughout the course, specific attention will be given to the development of a sacramental spirituality.

T/RS 221 Dr. Steele
Prayer 3 credits
(Formerly T/RS 130) Introduction to the nature, purpose, and method of prayer in the Catholic Christian tradition.

T/RS 222 Fr. Sattler
Theology of Love and Marriage 3 credits
(Formerly T/RS 135) Natural and supernatural meaning of love. The theology of vocation, the secular meaning, sign and celebration of Christian matrimony, and the implications for Christian perfection in the calling to marriage and family life.

T/RS 223 Fr. Sattler
Theology of Sexuality 3 credits
(Formerly T/RS 136) Examines the contributions of biology, ecology, ethnology, genetics and psychology to an understanding of human sexuality along with a reflection upon the Christian implications both practical and theoretical about the matter.

T/RS 224 Dr. Kopas, o.f.s.
Theology of the Person 3 credits
(Formerly T/RS 138) A study of the religious dimension of personal existence against the background of Christian tradition and contemporary experience. In the process, it develops some of the main themes of a Christian anthropology including creation and salvation

T/RS 225 Fr. Sable, S.J.
Introduction to the Theology of the Byzantine Churches 3 credits
(Formerly T/RS 144) The Byzantine theological tradition develops special emphasis within the mainstream of the Christian tradition. This course introduces the student to the study of some of the specifically Byzantine contributions to the understanding of the Christian mystery, with particular emphasis on early developments.

T/RS 226 Fr. Sable, S.J.
Introduction to
Eastern Liturgies 3 credits
(Formerly T/RS 145) A survey of the Eastern Eucharistic Liturgies with particular emphasis on the structure, history, and liturgical theology of the Byzantine Liturgy of St. John Chrysostom.

T/RS 227 Dr. Kopas, o.s.f.
Christ in Tradition
and Culture 3 credits
(Formerly T/RS 146) Examines the meaning and message of Jesus Christ as understood and communicated in the faith of his followers with special consideration given to the symbolic dimensions and cultural aspects of that Christian understanding.

T/RS 228 Rev. Wanck
The Protestant Tradition 3 credits
(Formerly T/RS 185) An exploration of the Reformation vision of theology covering the roots and principles of the Protestant way of dealing with such topics as the nature of the Church, redemption, ethics, God and Jesus.

T/RS 229 Rabbi Shoop
Jewish Theological Thought 3 credits
(Formerly T/RS 186) The nature, creeds, and institutions of Judaism. Includes a study of the concept of God, the constitution of the Good, the destiny of Mankind and the shadow of Sin.

T/RS 230 Msgr. Bohr & Staff
Moral Theology 3 credits
(Formerly T/RS 165) A study of the Christian moral traditions, its history and principles. Among areas to be treated are: the family, sexual activity, and human rights.

T/RS 231 Dr. Benestad
Social Ethics 3 credits
(Formerly T/RS 164) This course will prepare students to recognize ethical dimensions of political, economic and social issues through the study of the following: pertinent writings of Pope Paul VI and Pope John Paul II, a classic work of political theory, and several contemporary writings on such issues as morality and foreign policy and economic justice.

T/RS 232 Dr. Benestad
John Paul II and Catholic 3 credits
Social Thought
(Formerly T/RS 166) This course will explore the dialogue between the Catholic Church and modern ideologies on social and political matters. Readings include pertinent documents of the Second Vatican Council and recent papal writings, especially those of Pope John Paul II.

T/RS 233 Dr. Steele
Suffering 3 credits
(Formerly T/RS 174) The existence of suffering and evil presents a particular problem for those who believe in a God who is unlimited both in power and goodness. This course will examine the problem and possible solutions.

T/RS 236 Prof. Casey
Faith and Justice 3 credits
(Formerly T/RS 181) An inquiry into the role of the Church, Christian social ethics, and the citizen in the formulation of social policy on the economy. Church Pastorals and Biblical readings will be the basis of discussion.

T/RS 237 Prof. Casey
Politics: A Christian Perspective 3 credits
(Formerly T/RS 180) An inquiry into the role of the state, the Church and the individual in political life. Special attention is given to the problem of violence; the course is set in the unique American perspective of Church-State Relations.

T/RS 239 Fr. Liberatore
Theology for the 20th Century 3 credits
An introduction to the problems and methods of doing theology today. This course will begin with an overview of some of the main themes of 20th century theological thought, and will then move on to a study of one of the century's leading Catholic theologians: Karl Kahner. Emphasis will be placed on the integration of a plurality of philosophical approaches with the theological tradition and with questions of the present day.

T/RS 303 Drs. Steele, Frein
Jesus for the Gentiles: 3 credits
An Introduction to the Gospel of Luke
(Formerly T/RS 108) The primary purpose of this course is a close reading of the Third Gospel. Although the primary focus will be on the text rather than on methods of analysis, appropriate attention will be paid to literary forms, historical background and responsible interpretation. (Complements T/RS 201 and 205).

T/RS 304 Dr. Mathews
The Johannine Gospel 3 credits
& Epistles
(Formerly T/RS 109) A close look at the Fourth Gospel and the Epistles of John with an emphasis on their literary, historical, and theological characteristics.

T/RS 305 Dr. Mathews
The Apocalypse of St. John 3 credits
(Formerly T/RS 115) This introduction to the last book of the Bible will emphasize the literary forms and thought patterns of apocalyptic literature as well as the historical and theological character of the book itself, highlighting both textual interpretation and contemporary relevance.

T/RS 306 Dr. Mathews
Job and the Psalter 3 credits
A close look at the Wisdom Literature of the Old Testament. The study of both the Book of Psalms and the Book of Job will emphasize theological themes.

T/RS 307 Dr. Mathews
Passion and Resurrection Narratives 3 credits
A study of the theology of each of the Gospels by an analysis of the key narratives of the Passion and Resurrection in the four Gospels.

T/RS 308 Dr. Mathews
The Great Prophets 3 credits
An examination of the four major prophets of the Old Testament: Isaiah, Jeremiah, Ezekiel and Daniel, with an emphasis on the study of selected texts.

T/RS 310 Fr. Rousseau, S.J.
Religion and the American People 3 credits
(Formerly T/RS 154) An exploration of the great religious developments, persons, and questions in the life of the American people from the beginnings to the present day.

T/RS 311 Mr. Yevics
Liturgical Theology of Byzantine Churches 3 credits
(Formerly T/RS 152) A survey of the various elements of the liturgical life of the Byzantine tradition examining both the way that tradition is shaped and expresses itself as well as the underlying influences of faith upon that formation and practice.

T/RS 312 Fr. Linehan, S.J.
Jesuit Spirit 3 credits
(Formerly T/RS 150) The Society of Jesus (Jesuits): Its spirituality, tradition and history from their 16th century origins in the Spiritual Exercises of St. Ignatius of Loyola through the contemporary period with special emphasis on Jesuit theological and cultural contributions to the Church.

T/RS 313 Dr. Benestad
Introduction to the Greek Fathers 3 credits
(Formerly T/RS 155) Using primary sources, this course provides an introduction to major themes of the Greek Fathers. Justin's *Apology, Against Heresies* by Irenaeus, *Christ the Educator* by Clement of Alexandria, *On the Incarnation* by Athanasius, *the Lord's Prayer* and the *Beatitudes* by Gregory of Nyssa. Basil's *Moralis* and *Letters* and Nazianzen's *Theological Discourses.*

T/RS 315 Dr. Kopas, o.s.f.
Women in Christianity 3 credits
(Formerly T/RS 159) An exploration of some of the major roles women have played in Christian thought and experience, including their contributions as disciples, spiritual guides, and social critics. Will also examine assumptions about male and female identities and consider challenges to traditional roles.

T/RS 320 Fr. Coccia
Faith and Reason 3 credits
(Formerly T/RS 131) The problem of faith and reason, that is, intellectual difficulties with belief and the objects of belief, reexamined in the light of contemporary epistemology. An in-depth study, taking in both the problem of truth and the problem of knowledge.

T/RS 321 Fr. Coccia
Christian Spirituality 3 credits
(Formerly T/RS 133) An historical, analytical, appreciative study of the fundamental principles and development of Christian ascetical theology. Traditional concepts such as faith, prayer, sin, conversion, discernment, peace, consolation, desolation, repentance, and mortification are examined and evaluated.

T/RS 322 Dr. Kopas, o.s.f.
Approaches to God 3 credits
(Formerly T/RS 140) A study of some of the ways religious thinkers have approached the topic of God. Will include consideration of biblical, classical, and contemporary ways of understanding God as well as a selection of artistic, cultural, and imaginative perspectives on God.

T/RS 323 Fr. Gabuzda
Signs & Symbols 3 credits
(Formerly T/RS 120) This course introduces themes which serve as the basis for a sound sacramental theology. Areas include: symbol/ritual; biblical and liturgical foundations for the sacraments and contemporary trends in sacramental theology.

T/RS 324 Dr. Benestad
Spiritual Classics 3 credits
(Formerly T/RS 141) A study of the autobiographies of St. Augustine and St. Teresa of Avila (The Confessions and Life of Teresa of Jesus). As an introduction to the study of the spiritual life, John Paul II's Sign of Contradiction is read.

T/RS 325 Fr. Levko, S.J.
Eastern Christian Spirituality 3 credits
(Formerly T/RS 147) A study of the meaning of the spiritual life for Eastern Christian writers with a particular emphasis upon Sts. Athanasius, Gregory of Nyssa and Gregory Palamas. Themes such as prayer, image and likeness with God, disconcernment of spirits, hesychasm and icons will be discussed.

Richard Rousseau, S.J., Chairperson, Department of Theology/Religious Studies and Editor, University of Scranton Press.

T/RS 326 Prof. Casey
The Church and Contemporary Social Issues 3 credits
(Formerly T/RS 163) Explores the religious and ethical dimensions of social issues such as prejudice and violence. The findings of related social sciences and literature are placed in the context of Christian anthropology to give the student a concrete view of their interrelationship.

T/RS 330 Dr. Benestad
Biomedical Ethics 3 credits
(Formerly T/RS 190) This course will present theological reflections on the two main ethical theories undergirding contemporary biomedical ethics. It will also present and discuss relevant philosophical and theological arguments on such issues as abortion, care of handicapped infants, euthanasia, suicide and the profession of medicine.

T/RS 331 Dr. Benestad
Christian Ethics in the Modern World 3 credits
(Formerly T/RS 162) This course will discuss the practice of the Christian moral life in contemporary society. The Christian virtues will be distinguished and related to selected problems arising in our lives as private individuals, as members of families, as professionals and as citizens. Other topics to be treated include: evil, sin, Christian liberty, Christian perfection, relativism and humanism.

T/RS 332 Dr. Pinches
Christian Ethics in America 3 credits
An exploration of the discussion of theologians since 1900 of the moral, social, and political implications of Christianity, including especially such questions as Christianity and ethics, politics, and America's sense of being a Christian nation.

T/RS 334 Rabbi Shoop
Theology of the Holocaust 3 credits
(Formerly T/RS 176) A course dealing with historical, religious and psychological elements of the Holocaust. The course will treat the writings of many of the contemporary theological thinkers in their treatment of man's inhumanity to man. The course will treat both Christian and Jewish theological responses to the Holocaust. The problem of evil in the universe will be analyzed in the framework of the Holocaust.

T/RS 336 Fr. Rousseau, S.J.
Contemporary Case Studies in Theology 3 credits
(Formerly T/RS 175) T/RS 336 attempts to develop Christian insights into a series of specific moral dilemmas or cases through continued class discussion.

INTERDISCIPLINARY COURSES*

INTD. 101 Profs. Baillie, Benestad
Is Capitalism Christian? 3 credits
A philosophical, theological, and economic inquiry into the nature of Capitalism and the nature of Christianity to determine the compatibility between them.

INTD. 102 Dr. Parson, Champney
Politics and Literature 3 credits
A consideration of the nature of politics and political argument, a discussion of literature as a forum for political argument. Analysis of Latin American novels for the use of political and literary symbols.

INTD. 103 Staff
The Vietnam Experience 3 credits
The historical origins of the Vietnam War including the period of French colonialism and the American intervention; the politics, economics, and military strategy in Vietnam during the war years and today. Present relations with China and the USSR. Why were we there and why did we fail?

INTD. 104 Staff
The American Experience 3 credits
An examination from the perspectives of History and Literature/Drama of the elements that have shaped our present culture, and an analysis of the trends that may predict our future.

INTD. 105 Drs. Homer, McInerney
Great Lives: Images on Stage and in History 3 credits
An examination of the often contrasting impressions of historical personalities, as they are portrayed in plays and films and as they appear to historians. Historical figures to be considered include Caesar, Richard III, Thomas More, Lincoln and Churchill.

INTD. 106 Dr. Beal, Staff
Theology & Literature 3 credits
A study aimed at deepening students' appreciation of the literary experience and its capacity to reveal human religious capabilities. Readings, lectures, discussions and films will focus on human freedom as a vehicle to personhood, community and God.

INTD. 107 Profs. Lawhon, Ledford-Miller
American Minorities 3 credits
Examination of racial and ethnic groups from the settlement of America until the present day. Examination of the historical context and current situation of Native Americans, Blacks, Immigrants, political Exiles, Mexican-Americans, and Women-as-minority. Readings from literature and other areas will include such writers as Angelou, Arenas, Cather, Gordon, Goytisolo, and Rodriguez.

INTD. 108 Staff
Health & Legal Implications of Chemical/Drug Abuse 3 credits
A team taught course that deals with the neurophysical, health, and legal implications of alcohol/drug abuse, viz: its biochemical effects and aspects, its legal and social consequences, and its health and lifestyle implications.

INTD. 109 Staff
Parenting 3 credits
Integrating the disciplines of psychology and literature, this course is designed to increase one's capacity to be a good parent. Fiction is used as discussion source for learning about child development, family relations, and parent education.

NSCI 101 Prof. Kalafut
History of Science and Technology 3 credits
A course for non-science majors that traces the evolution of scientific inquiry from the pre-Socratics to the present. The central ideas that enable man to understand and control the forces of nature and develop modern technological societies are examined. Selections from the classics in science will be studied. (No prerequisites.)

NSCI 102 Dr. Baril, Prof. S. Casey
Science and Society 3 credits
This course would attempt to show how the sciences, particularly the behavioral sciences, impact both positively and negatively on society. Issues dealt with would include the nature of science, similarities and differences between the scientific disciplines, the impact of science on the concept of free will, and the philosophical and moral implications of psychological testing, socio-biology, and Skinnerian radical behaviorism.

NSCI 201 Drs. Carey, Vinson
Science and the Human Environment 3 credits
A brief study of the effects of the technological, scientific and industrial progress on the air, land and water resources of the human environment. Problems in each of the resource areas will be discussed in detail.

* Interdisciplinary courses are team-taught courses which vary from semester to semester. They may be used to fulfill appropriate General Education requirements.

The School of Management

Dr. Joseph Horton, Dean

The School of Management combines the traditional Jesuit emphasis on the liberal arts with a solid foundation in business. Its program of study follows the standards of the American Assembly of Collegiate Schools of Business, providing a strong background in all the functional aspects of business, as well as in-depth preparation in an area of specialization.

GOALS AND OBJECTIVES

The primary goal of the School of Management is to prepare future leaders for business and such other sectors of society as governmental and non-profit institutions requiring managerial talent, leaders who have a broad knowledge of the methods and processes of professional management and an informed understanding of the interrelationships between the professional world and society at large. The manager is not only a decision maker, but is also the leader responsible for the implementation of decisions and the evaluation of results.

Therefore, the undergraduate program of study seeks to accomplish the following objectives:

1. **Liberal Arts:** To provide students with a broad liberal arts foundation, that their knowledge, skills, attitudes and values may have a human and social dimension as well as a professional dimension.
2. **Professional Core:** To provide students with a sound background knowledge of the theory and practice of modern management, to begin the development of skills needed for successful managerial careers, and to develop an openness to the attitudes, values and commitments that society rightly expects of professionals.
3. **Specialized Professional Interest:** To provide students with the opportunities for specialized professional work in specific discipline areas.
4. **Personal Development:** To provide students with opportunities of developing their knowledge, skills and commitment to their professions and to society by involving them in varied non-classroom endeavors such as participation with faculty on community service projects, internships and other professional extra-curricular opportunities.
5. **Community Service:** To encourage faculty and students to serve the community through research and investigation of regional management problems.

DEPARTMENTAL PROGRAMS

Six programs are available in the School of Management: Accounting-Track in Financial Accounting, Accounting-Track in Managerial Accounting, Finance, Management, Marketing, and Production & Operations Management. In addition, a B.S. in Economics is jointly offered with the College of Arts & Sciences. These programs prepare the student for a career in business or for graduate study. Except for the requirements of the major and the business core, the student in the School of Management will adhere to the same regulations as the student in the other undergraduate colleges. Apart from minor exceptions, which require the explicit approval of the Dean of the School, the student will spend the senior year in residence at the University.

MINOR IN GENERAL BUSINESS

A minor in General Business is available to non-business students, with the exception of students majoring in Chemistry-Business, Electronics-Business, International Language-Business, and Economics (SOM only). It will consist of 21 credits:

ECO. 210	Essentials of Economic Theory
ACC. 253-254	Financial & Managerial Accounting
MGT. 251	Legal Environment of Business
MGT. 351	Organization & Management
MGT. 352	Organizational Behavior
MKT. 351	Managerial Marketing

These are the courses that are required in five of the six foundation areas for the MBA program in the Graduate School. The last three courses must be taken after the other courses, and may be taken no earlier than the junior year.

BUSINESS COGNATE

Non-business students with special needs may pursue a personal cognate in business. With the approval of his or her advisor, the student is free to select a variable number of business courses; however, the prerequisites stated in the catalog must be observed, and upper division courses may not be taken before the junior year.

MATH OPTIONS FOR BUSINESS MAJORS

Business majors are advised to take as high a level of math as they can handle at a performance level of C or higher. This will be an advantage in the job market and in graduate studies.

OPTION A: Recommended to students who have achieved a B+ average in high school math through Pre-calculus and have a minimum SAT score of 600.

SEMESTER I	SEMESTER II	SEMESTER III
Math 114 (4 cr)	Math 221 (4 cr)	Math 222 (4 cr)
Analysis I	Analysis II	Analysis III

OPTION B: Recommended to students who have achieved a B+ average in high school math through Trigonometry and have a minimum SAT score of 550.

SEMESTER I	SEMESTER II	SEMESTER III
Math 103 (4 cr)	Math 114 (4 cr)	Math 221 (4 cr)
Pre-calculus	Analysis I	Analysis II

OPTION C: Minimum level of math required for a business major, to be taken by students who do not qualify for options A or B. Students are advised that Math 101, 102 or 005 may **not** be applied toward degree requirements.

SEMESTER I	SEMESTER II	SEMESTER III	SEMESTER IV
Math 106 (3 cr)	Math 107 (3 cr)	Math 108 (3 cr)	Area I el. (3 cr)
Quant.	Quant.	Mathematics	Natural
Meth. I	Meth. II	of Finance	Science

Students may change the math option assigned with permission of the Assistant to the Dean of the School of Management.

Thomas Beckish, Academic Counselor; Barbara Gleason, Assistant to the Dean and Director of the SOM Advising Center; and Kathleen Degyansky, Academic Advisor.

PROGRAMS OF STUDY

LOWER DIVISION

The curriculum in the lower division is the same for all programs, except Economics (cf p. 142). Note that in the SOM the COGNATE area is called the BUSINESS CORE.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
BUS. CORE	Eco. 151-152	Principles of Economics I-II	3	3
GE AREA I	Math*	Math Option	3/4	3/4
GE AREA III	Communications #	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil 120-T/RS 121	Introduction to Philosophy-Introduction to Theology	3	3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			16/17	16/17
		SOPHOMORE		
BUS. CORE	Acc. 251(253)-252(254)**	Elementary Accounting Sequence	3	3
BUS. CORE	QMS 251-252	Statistics for Business I-II	3	3
BUS. CORE	Mgt. 251***	Legal Environment of Business	3	
GE AREA III	CMPS 104***	Computing for Business and Social Sciences		3
GE AREA I/II	Math*/Humanities	Math Option/Elective	3/4	3
GE AREA V	Phil. 210 - T/RS 122	Ethics Theology II	3	3
GE AREA I	Nat. Sci. El.	Math Option C		3
PHYS. EDUC.	Ph.Ed.	Physical Education	1	1
GE AREA II	Soc. 110	Princ. of Sociology##	(3)	
			16/17 (19/20)	16/19

* See Math Option of business students (p. 137).

** Accounting and Finance majors take Acc. 251-252; Financial Accounting I. II. Other business majors take Acc. 253. 254; Financial Accounting, Managerial Accounting.

*** Accounting majors should take Mgt. 251 in the Fall and CMPS 104 (a recommended course) in the Spring; other business majors should reverse this order.

Public Speaking (COMM 100) and Composition (ENGL. 110) are required except for students who receive AP credit or are certified by exam as satisfying the Communication Skills requirements.

Accounting & Finance majors only. Management, Marketing and Production majors take this course during the junior year.

UPPER DIVISION
SPECIAL TOPICS COURSES

Special topics courses are offered in each department. The course numbers below will be prefixed with the appropriate department abbreviation.

Internship: 480-481 3-6 credits
(Formerly 198-199; Approval of Chairperson and Dean required)

Guided Research for Independent Study: 482-483 3 credits
(Formerly 195-196; Approval of Chairperson and Dean required) Content determined by mentor in specialized field.

Seminar: 490-491
(Formerly 182-183; Prerequisite: Senior Standing) This course will discuss topics for current concern in a specialized field, and will be conducted in seminar fashion. Content and emphasis will vary from year to year, but will always be up-to-date.

ACCOUNTING

DR. R.J. GRAMBO, *Chairperson*

Accounting accumulates and interprets the quantitative data necessary for appraising and controlling business operations and for sound decision making. The Financial Accounting Track is appropriate for the student interested in a career in public accounting. The public accountant is concerned with the preparation and reporting of financial statement information to users outside the organization. Students going into public accounting should consider seeking CPA (Certified Public Accountant) certification. The Managerial Accounting Track is the appropriate choice for a student wanting a career in management accounting. Emphasis here is on the use of accounting information for decision making within the organization. The CMA (Certified Management Accountant) is the appropriate certification in this area.

ACCOUNTING

Financial Accounting Track

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		JUNIOR		
MAJOR	Acc. 361-362	Intermediate Accounting I-II	3	3
MAJOR	Acc. 363-364	Federal Taxes, Auditing	3	3
BUS CORE	Mgt. 351-352	Organization and Management-	3	
		Organizational Behavior		3
BUS CORE	QMS 351-POM 352	Intro. to Mgt. Science—	3	
		Production and Op. Mgt.		3
BUS CORE	Fin. 351-Mkt. 351	Intro. to Finance—	3	
		Managerial Marketing		3
GE AREA II	Psych. 110	Fundamentals of Psychology *	3	
BUS CORE	Eco. 351	Environment Intl. Business		3
			18	18
		SENIOR		
MAJOR	Acc.460,Maj. El.	Adv. Acctg. I, Acctg. Elect.	3	3
MAJOR	Acc. 461, Maj El.	Cost Acctg., Acctg. Elect.	3	3
BUS CORE	Mgt. 455, POM 471	Policy & Planning,	3	
		Bus Information Mgt.		3
GE AREA IV	Humanities	Electives	3	6
GE AREA V	T/RS-Phil. 211	Elective-Business Ethics	3	3
GE FREE	Elective	Elective	3	
			18	18
			TOTAL:	142 credits

Managerial Accounting Track

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		JUNIOR		
MAJOR	Acc. 361-362	Intermediate Accounting I-II	3	3
MAJOR	Acc. 461-365	Cost Acctg-Fedl Taxes of Corp	3	3
BUS CORE	Mgt. 351-352	Organization and Management—	3	
		Organizational Behavior		3
BUS CORE	QMS 351-POM 352	Intro. to Mgt. Science—	3	
		Production and Op. Mgt.		3
BUS CORE	Fin. 351-Mkt. 351	Intro. to Finance—	3	
		Managerial Marketing		3
GE AREA II	Psych. 110	Fundamentals of Psychology *	3	
BUS CORE	Eco. 351	Environment Intl. Bus		3
			18	18
		SENIOR		
MAJOR	Acc. 462, Maj El	Adv. Mgrl. Acctg., Adv.	3	
		Acc. El.		3
MAJOR	Maj. El., Maj El	Advanced Acctg. Electives	3	3
BUS CORE	Mgt. 455, POM 471	Policy & Planning	3	
		Bus. Information Mgt.		3
GE AREA IV	Humanities	Electives	3	6
GE AREA V	T/RS-Phil. 211	Elective-Business Ethics	3	3
GE FREE	Elective	Elective	3	
			18	18
			TOTAL:	142 credits

* Recommended.

Major electives for the Financial Accounting track are ACC 365, 380, 470, 472, 473, & 475. Major electives for the Management Accounting track are ACC 198, 364, 460, 471, 474, 475; ECO 361; FIN 173, 179; MGT 460.

ACC. 210 Staff
Survey of Managerial & Financial Accounting 3 credits
(Formerly Acc. 101) Intended to provide a foundation in accounting for MBA students and for non-business students taking credits in business, this is an intensive course that covers reporting financial information and accounting techniques for decision-making, planning and controlling operations. Not open to students needing 6 credits in introductory accounting.

ACC. 251 Staff
Financial Accounting 251 3 credits
(Formerly Acc. 1; For Acc. & Fin. majors) A survey of accounting principles, concepts and procedures. Includes financial statements, information processing cycle, voucher system, receivables, inventory costing methods, plant and equipment, and intangibles.

ACC. 252 Staff
Financial Accounting II 3 credits
(Formerly Acc. 2; Continuation of Acc. 251 for Acc. and Fin. majors) A study of accounting principles relevant to payroll accounting liabilities, partnerships, corporations and investments. Also, techniques required in compiling and interpreting data to be used in decision making including funds flow, budgeting and cost analysis. The use of computers in accounting will be introduced.

ACC. 253 Staff
Financial Accounting 3 credits
(Formerly Acc. 3; For non-accounting majors) A survey of the topics in Acc. 251 and 252. Coverage is directed toward the reporting of financial information to interested parties.

ACC. 254 Staff
Managerial Accounting 3 credits
(Formerly Acc. 4; Continuation of Acc. 253 for non-accounting majors) Accounting techniques required in compiling and interpreting selected data for decision making. Includes such areas as cash and working capital flows, profit planning, statement analysis, capital investment decisions, planning and controlling operations.

ACC. 361 Drs. Carpenter, Mensah, Staff
Intermediate Accounting I 3 credits
(Formerly Acc. 21; Prerequisite Junior standing, Acc. 252) A comprehensive study of contemporary accounting theory, concepts and procedures and their application of the asset classifications on the balance sheet. Current pronouncements of the various accounting organizations relevant to assets will be emphasized.

ACC. 362 Drs. Carpenter, Mensah, Staff
Intermediate Accounting II 3 credits
(Formerly Acc. 23; Prerequisite Acc. 361) Application of contemporary accounting theory to liabilities and stockholder's equity classifications of the balance sheet. Current pronouncement of accounting organizations.

ACC. 363 Prof. Gabello, Staff
Federal Taxes 3 credits
(Formerly Acc. 123; Prerequisite: Junior standing, Acc. 252) An introductory course covering pertinent phases of federal income taxation. Emphasis on business transactions, preparation of individual, partnership and corporate returns and finding the answers to federal tax questions.

ACC. 364 Dr. R.J. Grambo, Staff
Auditing Theory 3 credits
(Formerly Acc. 121; Prerequisite Acc. 252) A review of generally accepted accounting principles and applicable auditing principles, standards and procedures. Auditing original records and assets. Automation and the examination of electronically prepared records. Preparation of work papers.

ACC. 365 Staff
Federal Taxation of Corporations and Partnerships 3 credits
(Formerly Acc. 128; Prerequisite: Acc. 252) An introduction to the taxation of corporations and partnerships including analyses of the tax consequences of the formation, operation and liquidation of regular corporations. Subchapter 5 corporations and partnerships.

ACC. 460 Dr. Zandarski, Staff
Advanced Accounting I 3 credits
(Formerly Acc. 117; Prerequisite: Acc. 362) The theories and promulgated standards of accounting related to multiple business units, including purchase versus pooling theory, consolidated income, minority interest, the use of equity method for unconsolidated investments, and branch accounting.

ACC. 461 Dr. R.J. Grambo, Staff
Cost Accounting 3 credits
(Formerly Acc. 115; Prerequisites: junior standing, Acc. 252) Theories, techniques and procedures in cost accumulation, reporting and control, including such topics as job order costs, process costs, by-products and joint-products costing, and standard cost and variance analysis.

ACC. 462 Staff
Advanced Managerial Accounting 3 credits
(Formerly Acc. 125; Prerequisite: Acc. 461) Accounting techniques as control devices in business with emphasis on use of accounting data in business decisions. Topics to include budgeting and profit planning, cost profit volume, profit analysis and direct costing.

ACC. 470 Prof. Dragotto, Staff
Law for Accountants 3 credits
(Formerly Acc. 14; Prerequisite Mgt. 251) A study of the law of personal property, bailments, commercial paper agency sales, and real property.

ACC. 471 Dr. R.J. Grambo, Staff
Management Auditing 3 credits
(Formerly Acc. 122; Prerequisite: Acc. 362) An in-depth examination of the accountant in the manager's position. Administrative effectiveness and efficiency as provided through sound internal controls. Design and implementation of monitoring systems within the organization to promote better cost, benefit decisions.

ACC. 472 Dr. Zandarski, Staff
Advanced Accounting II 3 credits
(Formerly Acc. 126; Prerequisite: Acc. 362) A study of advanced accounting concepts including the international operations, partnerships, fiduciary and institutional accounting, special sales contracts, installment sales and consignments. 3 hours lectures.

ACC. 473 Dr. R.J. Grambo, Staff
Advanced Auditing 3 credits
(Formerly Acc. 124; Prerequisite: Acc. 362) A study of the role computers play in the auditor's environment with an analysis of EDP controls and systems analysis related to the external audit process. Advanced statistical sampling techniques, flow charting and audit program preparation will be covered.

ACC. 474 Dr. R.J. Grambo, Staff
Accounting Information Systems 3 credits
(Formerly Acc. 127; Prerequisite: Acc. 362) The design and application of accounting systems in both the manual and automated environments. Analysis of information's accumulation and use patterns in organizations with a focus on providing useful and timely information. Extensive computer usage of Professional Business Software.

ACC. 475 Dr. Grambo, Staff
International Accounting 3 credits
(Formerly Acc. 129; Prerequisite: ECO 351) Students are introduced to world financial accounting issues. Topics include: Financial reporting in the multinational firms, currency translations and differing reporting standards. An analysis of the environmental influences on accounting development and the harmonization of international accounting systems and standards. Other topics include managerial accounting problems of the multinational corporations, translation of financial statements, foreign exchange risk management, transfer pricing and tax system philosophy.

Dr. Ron J. Grambo, CPA, Chairperson of Accounting Department

ECONOMICS/FINANCE

DR. R.W. GRAMBO, *Chairperson*

The major in ECONOMICS, which is available both through the School of Management and the College of Arts and Sciences (p. 68), provides an excellent training for understanding the economic events and developments of our complex industrialized society and of the world economies. It equips the student with training and background needed to assume responsible managerial positions in industry, commerce, banking, or government service. It also gives a strong preparation for the pursuit of graduate studies in Economics or the legal profession.

The practitioner in FINANCE must be familiar with the tools and techniques available, and, given the resources and constraints of the organizations and the general economic environment in which the organization operates, be adept at efficiently managing the fiscal resources of the organization, including the raising of funds and their short-term and long-term investment. Career opportunities in Finance include:

Banking	Investments	Corporate
Bank Examiner	Financial Analyst	Financial Analyst
Economic Analyst	Security Broker	Working Capital Management
Trust Officer		

ECONOMICS

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		JUNIOR		
MAJOR	Eco. 151, 152	Princ. of Economics I, II	3	3
GE I	Math Option Math	Option**	3/4	3/4
GE II	Communications	Electives: Comm 100,	3	
		Engl 110*		3
GE IV	Humanities	Electives: Hist 110, 111*	3	3
GE V	Phil 120-T/RS 121	Intro to Philosophy-	3	
		Theology I		3
PHYS ED	Ph. Ed.	Physical Education	1	1
			16/17	16/17
		SOPHOMORE		
MAJOR	Eco. 361, 362	Intermed. Economics I, II	3	3
MAJOR	QMS 253	Statistics for Economics		3
COGNATE	Acc. 253,254	Financial, Managerial Acctg.	3	3
GE III	CMPS 104	Comptg. for Bus. & Soc. Sci.	3	
GE IV	Humanities	Elective, Elective	3	3
GE V	Phil. 210-	Ethics-	3	
	T/RS 122	Theology II		3
PHYS ED	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	Eco. 460	Monetary & Fin. Eco.	3	
	Eco. 351	Environment of Intl. Bus.		3
MAJOR	Eco. Option	Electives	3	3
COGNATE	Electives	Electives***	6	6
GE I	Nat. Sci.	Elective		3
GE IV	Humanities	Electives	3	3
			15	18
		SENIOR		
MAJOR	Eco. Option	Elective	3	
MAJOR	Eco. El. Eco. Sem	Elective, Seminar	3	3
COGNATE	Electives	Electives***	3	3
GE V	Phil., T/RS	Electives	3	3
GE Free	Free Area	Electives	3	6
			15	15

TOTAL: 127/129 cred

* Recommended by the department.

** See the math options on page . The student majoring in economics will take the first two courses in one of the three options.

*** Economic majors may apply up to six cognate credits toward a Math minor. Students taking Math Option B are strongly urged to complete the calculus sequence by taking Math 222, particularly if they plan on pursuing graduate studies.

Economic majors registered in the School of Management will apply 9 of their elective cognate credits to one of the following areas (exceptions require the permission of the SOM Dean): Finance, Management, Marketing, Production and Operations Management. The remaining cognate credits may be applied to the social sciences or from the other business areas (but note that no more than 30 credits altogether can be taken in business subjects, exclusive of economic courses). Care must be taken to observe prerequisites. The student majoring in economics will select three courses from either the A or the B option:

A: Industrial Org. & Regulat., Labor Econ. & Labor Regulat., Public Finance & Taxat., Mgrl. Econ., Urban & Regl. Econ.

B: Intl. Econ. & Finance, Development Econ., Comparative Econ. Syst., Economic Geography.

ECO. 110 Dr. Corcione, Staff
Contemporary Economic Issues 3 credits
(Formerly Eco. 10; Open to SJLA students only) An examination, in the context of a formal economic perspective, of critical issues in the U.S. economy; unemployment, poverty, inflation, economic growth & productivity, trade & protectionism. In addition, such social programs as social security, unemployment compensation and guaranteed annual income will be studied.

ECO. 151 Staff
Principles of Economics I 3 credits
(Formerly Eco. 11) Determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the composition and fluctuations of national income all as influenced by monetary and fiscal policy.

ECO. 152 Staff
Principles of Economics II 3 credits
(Formerly Eco. 12) This course centers on the salient characteristics of the modern American economy. Operations of the price system as it regulates production, distribution, and consumption, and as it is in turn modified and influenced by private groups and government. International economics.

ECO. 210 Staff
Essentials of Economic Theory 3 credits
(Formerly Eco. 101) Intended to provide a foundation in economics for MBA students and for non-business students taking minor or cognate credits in business, this is an intensive course that stresses economic theory and public policy implications. The topics include stabilization of the economy; the price system as it regulates production, distribution and consumption and as it in turn is modified and influenced by private groups and government. Not open to students needing 6 credits in introductory economics.

ECO. 251-252 Dr. Nguyen
Economics Principles I and II 3 credits
These two courses cover the same topics as Economics 151 and 152, but they will stress the quantitative approach to economic studies. Computer Science majors are required to take this sequence. Other students who have successfully completed Math 114 and 221 may choose to take this sequence instead of Eco 151-152.

ECO. 351 Dr. Trussler/Staff
Environment of International Business 3 credits
(Formerly Eco. 103; Prerequisites: Eco. 151 & 152; junior standing) This course introduces the student to the growing field of international business, touching on the economic, social and political environments of international trade and multinational corporations. International institutions and agencies that impact on international business are discussed. Both the theoretical and practical aspects of these topics are emphasized.

ECO. 361 Dr. Ghosh/Staff
Intermediate Economics I 3 credits
(Formerly Eco. 117; Prerequisite: Eco. 152) This course centers on the analysis of production and cost theories. The topics studied are pure competition monopoly, oligopoly, monopolistic competition factor pricing, resource allocation, and income distribution. Economics majors take in Sophomore year; Finance in Junior year.

ECO. 362 Dr. Ghosh/Staff
Intermediate Economics II 3 credits
(Formerly Eco. 118; Prerequisite: Eco. 151) Course centers on the study of national income accounting, price level fluctuations, problems of full employment and impact of monetary and fiscal policy on income level and distribution. Economics majors take in Sophomore year; Finance in Junior year.

ECO. 363 Drs. Corcione, Ghosh
Industrial Organization & Regulation 3 credits
(Formerly Eco. 151; Prerequisite: Eco. 152) Study of the nature of business behavior in competitive and noncompetitive markets, examination of issues related to the public regulation of business, and analysis of the theory and performance of antitrust regulation.

ECO. 364 Dr. Corcione
Labor Economics & Labor Regulations 3 credits
(Formerly Eco.153; Prerequisites: Eco. 151, 152) Analysis of labor supply & demand; measurement theory of unemployment; occupational choice; wage differentials; labor market issues & policies; labor legislation.

ECO. 365 Drs. Bose, Giunta
Comparative Economic Systems 3 credits
(Formerly Eco. 161; Prerequisites: Eco. 151, 152) A critical analysis of the organization of economic systems. The characteristics of selected capitalist & socialist economies studied & assessed from both mainstream & Marxism analytical perspectives.

ECO. 366 Dr. Trussler
Economic Geography 3 credits
(Formerly Eco. 167; Prerequisite: Eco. 151, 152) The course will examine the broad areas of the spatial organization of economic systems and the location of economic activity. The discussion will encompass spatial decision-making for manufacturing industries, the service sector, and agricultural enterprises. The role of transportation in determining optimal locations and optimal flow of goods, information, and people will be emphasized. The spatial organization of the growth & development of cities & regions will also be discussed, as will the related topic of the development of nations within the global economy.

ECO. 460 Drs. Corcione, Nguyen
Monetary & Financial Economics 3 credits
(Formerly Ec/Fin. 160; Prerequisite: Eco. 362) This course emphasizes the interrelations between financial markets and the commercial banking system, and aggregate economic activity. The course relies on the tools of modern economics and finance to explain macroeconomic activity, the behavior of individual depository institutions, the money "supply," and other subjects that occupy the subject matter of money and banking.

ECO. 461 Dr. Nguyen, Staff
Managerial Economics 3 credits
(Formerly Eco. 155; Prerequisite: Eco. 361) Teaches the use of economic tools for managerial decision making. Topics include discussion of applicable economic, statistical and computer skills. Emphasis is on the microeconomic theory of the firm, how this is useful to business managers, & how this is applied.

ECO. 462 Drs. Trussler, Ghosh
Urban & Regional Economics 3 credits
(Formerly Eco. 157; Prerequisites: Eco. 361, 362) Tools, measurements and theories utilized in studying the economy of urban areas and regions. Issues such as growth, decline, housing, poverty and environmental concerns examined in a public policy context.

ECO. 463 Drs. Bose, Nguyen
Public Finance and Taxation 3 credits
(Formerly Eco. 159; Prerequisite: Eco. 362) Government expenditures, budgets, intergovernmental fiscal relations, public debt, fiscal policy, and the principles of taxation.

ECO. 465 Drs. Ghosh, Staff
Development Economics 3 credits
(Formerly Eco. 163; Prerequisites: Eco. 361, 362) Principal determinants of economic development & problems associated with generating & developing economic growth in less-developed areas.

ECO. 475 Drs. Giunta, Bose
International Economics & Finance 3 credits
(Formerly Eco. 165; Prerequisites: Eco. 351, 361, 362) Advanced foreign trade theory & balance of payments analysis, exchange rates, capital movements, financial institutions & current problems.

OMICRON DELTA EPSILON HONOR SOCIETY IN ECONOMICS

Dr. Hong V. Nguyen, Associate Professor of Economics; Dr. Alan S. Blinder, Princeton University, 1988 Henry George Lecturer, is flanked by Scout T. Crouch, '88-89 Vice President of ODE and Jennifer A. Auer, President of ODE and recipient of Excellence in Finance Award.

FINANCE

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		JUNIOR		
MAJOR	Eco. 361, 362	Intermediate Economics I-II	3	3
BUS. CORE	Eco. 351	Environment of Intl. Bus	3	
MAJOR	Fin. 361	Working Capital Mgt.		3
GE AREA II	Psych. 110*	Fund. of Psychology	3	
MAJOR	Fin. 362	Investments		3
BUS CORE	Mgt. 351-352	Organization and Management-	3	
		Organizational Behavior		3
BUS CORE	QMS 351-	Intro. to Management Science-	3	
	POM 352	Production & Op. Mgt.		3
BUS CORE	Fin. 351-	Intro. to Finance-	3	
	Mkt. 351	Managerial Marketing		3
			18	18
		SENIOR		
MAJOR	Eco. 460	Monetary & Fin. Eco.	3	
	Major Elec.	Fin. Elective		3
MAJOR	Fin. 470-Maj.	Capital Inv. & Struct.-	3	
	Major Elec.	Fin. Elective		3
BUS CORE	Mgt. 455,	Policy/Planning	3	
	POM 471	Bus. Information Mgt.		3
GE AREA IV	Humanities	Electives	3	6
GE AREA V	T/RS-Phil. 211	Elective-Business Ethics	3	3
GE FREE	Elective	Elective	3	
			18	18

TOTAL: 142 credits

* Recommended

FIN. 351 Dr. R.W. Grambo, Staff
Introduction to Finance 3 credits
(Formerly Fin. 110; Prerequisites: Junior standing, Acc. 252 or 254, Eco. 152) This course introduces the business student to the field of Finance. It serves as the foundation course for financial principles used in both financial management and investment courses. Topics include time value of money, risk analysis, basic operation of the capital markets, current asset and liability analysis, and introduction to the topics of capital budgeting and cost of capital calculation.

FIN. 361 Dr. R.W. Grambo, Staff
Working Capital Management 3 credits
(Formerly Fin. 111; Prerequisite: Fin. 351) This course is designed to give advanced study in the financial management area through detailed analysis of financial statements, liquidity crises, cash optimization, credit analysis, banking arrangements, loan contracts, commercial paper, and the use of money market.

FIN. 362 Dr. Puri, Staff
Investments 3 credits
(Formerly Fin. 120; Prerequisite: Fin. 351) An introduction to the theory and process of managing investments. Topics include practical operation of the equity markets, debt options, and futures markets. Stock valuation models using fundamental technical and random walk approaches.

FIN. 470 Dr. Puri, Staff
Capital Investment and Structure 3 credits
(Formerly Fin 112; Prerequisite: Fin. 351) Advanced study in the "permanent" financial aspects of the firm including capital budgeting models, optimal replacement processes, abandonment, leasing, cost of capital, capital structure, mergers and acquisitions, and bankruptcy.

FIN. 471 Dr. Hussain, Staff
Speculative Markets 3 credits
(Formerly Fin. 121; Prerequisite: Fin. 362) Advanced work in speculation, hedging and arbitrage. Use of speculative markets for profit and risk adjustment. Options and futures pricing models, financial and index futures, and options, precious metals, and foreign exchange.

FIN. 472 Dr. Hussain, Staff
Portfolio Management 3 credits
(Formerly Fin. 122; Prerequisite: Fin. 362) Advanced study of professional management of various portfolios including those of banks, insurance companies, pension funds, and non-profit institutions. Markowitz and Sharpe models, data availability, and computerized data services are covered.

FIN. 473 Staff
Financial Institutions 3 credits
(Formerly Fin. 130; Prerequisite: Eco. 362) Integration of financial companies into the macroeconomic environment. Topics include operations of the Treasury and the Federal Reserve Board, commercial banks, and savings institution operations. Bank management problems, including reserves management and loan analysis are covered. Life insurance and pension principles, and investment banking are covered.

FIN. 475 Dr. Giunta, Staff
International Finance 3 credits
(Formerly Fin. 140; Prerequisites: Eco. 351, 361 & 362) Trade principles, roles of banks in trade, exchange rates and markets, international liquidity management. Regional analysis of U.S. and Canada, E.E.C., Pacific Basin, South America, South Asia, Africa, and the Communist block.

MANAGEMENT/MARKETING

PROF. HEWITT, *Chairperson*

The field of MANAGEMENT is concerned with the management of human resources within the organization. It coordinates the selection, motivation and development of the organization's human resources. Career opportunities include:

Human Resources Testing & Research
Industrial Relations
Job Analysis & Evaluation
Manpower Planning
Personnel Director
Training Director
Wage & Salary Administration

The field of MARKETING concerns itself with the planning, pricing, promotion and distribution of goods and services. Career opportunities in this field include:

Advertising and Promotion
International Marketing
Marketing Research
Physical Distribution
New Product Planning
Product & Brand Management
Retailing Management
Sales & Sales Management

MANAGEMENT

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		JUNIOR		
MAJOR	Mgt. 361	Personnel Management		3
MAJOR	Mgt. 362	Labor Relations		3
BUS CORE	Mgt. 351-352	Organiz. & Mgt.-Org. Behavior	3	3
BUS CORE	QMS. 352-	Intro. Mgt. Sci.—	3	
	POM 352	Prod. & Op. Mgt.		3
BUS CORE	Mkt. 351-	Mgrl. Mktg.—	3	
	Fin. 351	Intro to Finance		3
GE AREA IV	Humanities	Elective	3	
BUS CORE	Eco 351	Environment Intl Bus	3	
GE AREA II	Soc. 110*	Princ. of Sociology	3	
			18	15
		SENIOR		
MAJOR	Mgt. 460-490	Organizat. Theory-Seminar	3	3
MAJOR	Mgt. El.-Mgt. El.	Advanced Mgt. Electives	3	3
BUS CORE	POM 471,	Bus. Info. Mgt.,	3	
	Mgt. 455	Policy & Planning		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS-Phil. 211	Elective-Bus. Ethics	3	3
GE FREE	Elective	Elective	3	
GE II	Psych. 110*	Fund. Psychology		3
			18	18
			TOTAL:	136 credits

* Recommended

MGT. 161 Staff
Intro to Business 3 credits
Nature, types, and principles of business. Factors to consider in starting or choosing a business organization. Overview of business functions—finance, marketing, production, accounting, and management—in an analytical framework. Attention to business environment: legal, governmental, social and ethical. Enrollment is restricted to Associate Business Degree students. Non-business students may take this course as a free elective with the permission of the Dean of Dexter Hanley College.

MGT. 251 Prof. Wormuth, Staff
Legal Environment of Business 3 credits
(Formerly Mgt. 9) The nature, sources, formation, and applications of law. The judicial function, the court system, litigation and other methods of resolving disputes, legislation law from judicial decisions, law by administrative agencies, regulation of business activity, antitrust law, consumer protection, environment and pollution control.

MGT. 351 Staff
Organization and Management 3 credits
(Formerly Mgt. 108; Prerequisite: Junior standing) The major concepts of managerial action deal with planning, organizing, directing, and controlling. Knowledge of these key aspects of the management process will provide the student with a framework for decision making.

MGT. 352 Staff
Organizational Behavior 3 credits
(Formerly Mgt. 116; Prerequisite: Mgt. 351) Investigates the field of organizational behavior in order to appreciate how work performance is affected by a variety of factors. Individuals, groups, and organizations, as they relate to organizational behavior, will be studied.

MGT. 361 Dr. Biberman, Staff
Personnel Management 3 credits
(Formerly Mgt. 140; Prerequisite: Mgt. 351) This course will describe and explain the preparation of job descriptions, demographics of labor resources, recruitment policies, interviewing techniques, hiring contracts, aptitude testing and performance evaluation, labor turnover and labor mobility, employee morale, complaints and grievances, disciplinary procedures, employee health and safety, wage and hour administration, and government regulations relating to labor. The handling of absenteeism, alcoholism, and drug addiction, and other functional duties of a personnel department will also be covered.

MGT. 362 Dr. Goll, Staff
Labor Relations 3 credits
(Formerly Mgt. 141; Prerequisites: Mgt. 351, Eco. 152) This course will focus on the factors in our economy contributed by human labor, the benefits which labor obtains from its efforts, the definition of what labor is and how it evolved and matured into a dynamic, vocal constituent of our current industrial society. A major part of the course will deal with labor compensation, wages and benefits, and how they are determined and negotiated. The position of unions in the current labor picture, current attitudes toward minorities in the labor force, discrimination and prejudices, will also be evaluated.

MGT. 455 Dr. Harris, Staff
Policy and Planning 3 credits
(Formerly Mgt. 180; Prerequisites: Seniors only, Fin. 351, POM 350, Mgt. 352, Mkt. 351) This is the capstone course for all business majors. Concepts and skills developed in the prerequisite courses are integrated and applied to the overall management of an organization. Topics will include setting objectives, designing strategic plans, allocating resources, organizational structuring and controlling performance.

MGT. 460 Dr. Goll, Prof. Hewitt, Staff
Organization Theory 3 credits
(Formerly Mgt. 142; Prerequisites: Mgt. 351, 352) Study of the forces both within and outside the organization that determine the structure and processes of an organization. Topics to be covered will include technology and size influences, conflict, boundary roles, matrix structure, political factors and sociotechnical systems.

MGT. 471 Dr. Biberman, Prof. McKeage
Group Dynamics 3 credits
(Formerly Mgt. 143; Prerequisite: Mgt. 351 or permission of instructor) Survey and analysis of constructs, research and applications of small group phenomena in an organizational context. Examines the various theories, research measurements and observational methods used in studying groups. Students will be able to explore their own behavior in groups by participating in various groups and, or by observing others in group experiences. The course will prepare students to be effective in groups.

MGT. 472 Prof. Hewitt, Staff
Women in Management 3 credits
(Formerly Mgt. 145; Prerequisite: Mgt. 351 or permission of instructor) A seminar exploring the new opportunities for women in management and the special skills and insights needed by them to take full advantage of such opportunities.

MGT. 473 Dr. Harris, Staff
Organizational Social Responsibility 3 credits
(Formerly Mgt. 148; Prerequisite: Mgt. 351 or permission of the instructor) This course is designed to introduce students to basic concepts which underlie the social responsibility aspect of the management process. The role of pluralism is examined in the societal system to provide an understanding of the evolving relationship between organizations and society as a whole. The essential nature of the managerial approach is explored in the light of the increasing importance of societal impact on the organization.

MGT. 475 Dr. Chowdhury, Staff
International & Comparative Management 3 credits
(Formerly Mgt. 170; Prerequisites: Eco. 351, Mgt. 351) Designed as an advanced level undergraduate course on international business. Focuses on functional strategies of multi-national corporations (MNCs), structure & control systems of MNCs, and comparative management. The specific MNC strategies to be covered include entry, sourcing, marketing, financial, human resource, and public affairs. The study of structure and control systems delves into issues such as corporate structure, headquarters-subsidiary relationships. Study of comparative management systems focuses on nature of management systems & practices in different cultures. Projected as a mainly case oriented course.

MARKETING

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		JUNIOR		
MAJOR	Mkt. 361	Marketing Research		3
MAJOR	Mkt. 362	Buyer Behavior		3
BUS CORE	Eco. 351-	Environm. of Intl. Bus.-	3	
BUS CORE	Mgt. 351-	Organization and Management-	3	
	Mgt. 352	Organizational Behavior		3
BUS CORE	QMS. 351-	Into. to Management Science-	3	
	POM 352	Prod. and Op. Mgt.		3
BUS CORE	Mkt. 351-	Managerial Marketing-	3	
	Fin. 351	Intro to Finance		3
GE AREA II	Soc 110*	Princ. of Sociology	3	
GE AREA IV	Humanities	Elective	3	
			18	15
		SENIOR		
MAJOR	Mkt. 470-	Marketing Communications-	3	
	Mkt. 490	Mkt. Seminar		3
MAJOR	Mkt. El.-	Mkt. Elective	3	
	Mkt. El.	Mkt.-Elective		3
GE II	Psych 110*	Fund. of Psych	3	
BUS CORE	POM 471,	Bus. Info. Mgt.,	3	
	Mgt. 455	Policy & Planning		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS-Phil. 211	Elective-Business Ethics	3	3
GE FREE	Elective	Elective		3
			18	18

TOTAL: 136 credits

* Recommended.

MKT. 351 Staff
Managerial Marketing 3 credits
(Formerly Mkt. 107; Prerequisites: Junior standing, Eco. 151, 152) Managerial analysis of the marketing activities in business firms and institutions including issues of macroenvironment, consumer behavior and international markets. Emphasis on segmenting target markets and developing marketing policies, such as product introduction, promotional campaigns, channels of distribution and pricing tactics.

MKT. 361 Staff
Marketing Research 3 credits
(Formerly Mkt. 130; Prerequisite: Mkt. 351) Study of the role of marketing information as the basis for decision making. Topics include research design, methods of gathering data, questionnaire structure, interviewing methods, and preparing the final report. Examples of various types of research problems and quantitative techniques used by marketing management are presented.

MKT. 362 Staff
Buyer Behavior 3 credits
(Formerly Mkt. 132; Prerequisite: Mkt. 351) Study of theories of consumer behavior. The buyer is analyzed at the individual level in terms of motivation, attitudes, etc. and at the social level in terms of influence on buying behavior from the socio-economic environment.

MKT. 470 Staff
Marketing Communications 3 credits
(Formerly Mkt. 131; Prerequisite: Mkt. 351) Personal and mass communication approaches generated by manufacturers and intermediates or institutions toward target markets. The design of advertising campaigns to shift consumer attitudes, to secure resellers' support and to inform, persuade and move them to action. Development of copy selection of media and measurement of promotion effectiveness including evaluation of sales force.

MKT. 471 Prof. Pachuk, Staff
Sales Force Management 3 credits
(Formerly Mkt. 134; Prerequisites: Mgt. 352, Mkt. 351) This course is intended to develop the concepts and techniques needed to identify and analyze the various decision areas faced by a sales force manager. Topics to be covered include recruiting, selecting, and training the sales force; forecasting, budgeting and sales quotas; assigning, motivating and compensating the sales force.

MKT. 472 Prof. Pachuk, Staff
Retailing Management 3 credits
(Formerly Mkt. 135; Prerequisites: Mgt. 352, Fin. 351, Mgt. 351, QMS 351) This course is intended to focus on the decision area facing retail managers. Topics to be covered will include retailing, structure, merchandising, locations, store layout, promotion, pricing and personnel.

MKT. 475 Staff
International Marketing 3 credits
(Formerly Mkt. 169; Prerequisites: Eco. 351, Mkt. 351) Analysis of the marketing strategies of multinational corporations with emphasis on competitive advantage. Comparison and contrast of regional markets (including the E.C., the Far Eastern nations, China, and the U.S.S.R.) with their challenges and barricades. Guidelines and models for the evaluation of potential foreign markets and the structure of entry level marketing programs will be discussed. There will be extensive readings from global publications.

QUANTITATIVE MANAGEMENT SYSTEMS

DR. KAKUMANU, *Chairperson*

Production and Operations Management is primarily concerned with the effective use of physical resources in the production of goods and services. Career opportunities include:

Production Planning & Control
Inventory Management
Production Scheduling
Material Management
Quality Control
Warehouse Management
Maintenance
Purchasing

PRODUCTION AND OPERATIONS MANAGEMENT

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		JUNIOR		
MAJOR	POM 361	Productivity Management		3
MAJOR	POM El.	POM Elective	3	
BUS CORE	Mgt. 351-352	Organ. & Mgt.-Organ. Behavior	3	3
BUS CORE	QMS 351-	Intro. Mgt. Sci.-	3	
	POM 352	Prod. & Op. Mgt.		3
BUS CORE	Mkt. 351-	Mgrl. Mkt.-	3	
	Fin. 351	Intro to Finance		3
GE AREA IV	Humanities	Elective		3
GE CORE	Eco. 351	Environment Intl. Bus.	3	
GE AREA II	Soc. 110*	Princ. of Sociology	3	
			18	15
		SENIOR		
MAJOR	POM 470	Adv. Production & Inventory Mgt.	3	
	POM 490	POM Seminar		3
MAJOR	POM Elective	POM Elective	3	
	POM 473	Computer Applications to Mfg. Mgt.		3
GE II	Psych. 110*	Fund. of Psych		3
BUS CORE	POM 471—	Bus. Info. Mgt.—	3	
	Mgt. 455	Policy & Planning		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS-	Elective	3	
	Phil. 211	Business Ethics		3
GE FREE	Elective	Elective	3	
			18	18

TOTAL: 143½ credits

* Recommended.

QMS 251 Staff
Statistics for Business I 3 credits
(Formerly QMS 15; Prerequisite: Math 107 or 114) Detailed coverage od Descriptive Statistics, an introduction to the elements of Probability Theory (including Bayes' Theorem) and Decision Theory, and Index Numbers. The major discrete and continuous probability distributions are covered with an emphasis on business applications. Data analysis will be done using the computer software package MINITAB.

QMS 252 Staff
Statistics for Business II 3 credits
(Formerly QMS 16; Prerequisite: QMS 251; corequisite: CMPS 104) A survey of modern statistical methods covering sampling distributions, interval estimation, hypothesis testing, goodness-of-fit tests, analysis of variance, regression and correlation analyses, Time Series Analysis, and non-parametric statistics. Data analysis will be done using the computer software package MINITAB.

QMS 253 Staff
Statistics for Economics 3 credits
(Formerly QMS 20; Prerequisite: Math 107 or 114) The use of statistical tools to analyze economic data. The topics include measurement of central tendency, dispersion for both grouped and ungrouped data, index numbers, times series analysis, simple & multiple regression analysis.

QMS 351 Staff
Introduction to Management Science 3 credits
(Formerly QMS 109; Prerequisite: Junior standing, CMPS 104, QMS 252) A survey of the quantitative techniques which are used by modern managers. Topic coverage focuses on model building, linear programming methods, and simulation. Emphasis is placed on the use and limits of these quantitative methods.

POM 352 Staff
Production and Operations, Management 3 credits
(Formerly POM 115; Prerequisites: QMS 351, CMPS 104, Junior Standing) An introductory course designed to give the student a functional view of how to manage the activities involved in the process of converting or transforming resources into products or services. Topics covered include an overview of strategic decisions, forecasting, product design, process planning, facility layout, project management, basic inventory models, capacity planning, aggregate planning and scheduling.

POM 353 Staff
Logistics Management 3 credits
(Formerly POM 157; Prerequisite: POM 352) The design, operation and control of logistics systems for production and service firms. Topic coverage includes those activities associated with the firm. Sample topics include facilities, location, logistics customer service, order processing systems, mode and carrier selection, warehousing, and logistics requirements planning.

POM 361 Staff
Productivity Management 3 credits
(Formerly POM 151; Prerequisite; QMS 252, Junior standing) A study of productivity and materials flow. Topics include: productivity measurement, Just-in-Time techniques, synchronizing product flow, quality control issues, layout, job design, maintenance and purchasing issues.

POM 470 Dr. Nathan, Staff
Advanced Production and Inventory Management 3 credits
(Formerly POM 150; Prerequisite: POM 352) Production planning and inventory management within the organization. Topics covered inculde capacity planning, master production, scheduling, material requirements planning, inventory models, and problems of practical applications.

POM 471 Staff
Business Information Management 3 credits
(Formerly POM 153; Prerequisites: CMPS 104, Mgt. 351) Computers and how they can be applied to the operations and management of business firms. The topics include data processing concepts, overviews of computer hardware and software, modern data and information processing systems, applications of computers in business, acquiring and managing of computer and information resources.

POM 473 Staff
Computer Applications to Manufacturing Management 3 credits
(Formerly POM 152; Prerequisites; POM 352 and POM 471) This course covers aspects of data resources and data communications of an organization and the management of those resources. Topics include: manufacturing database planning, design, implementation, data communication networks and distributed database managements. Relational database management software packages will be used to gain hands-on experience and to develop class projects.

Dedication of the Houlihan-McLean Center: Professor John McLean, Alperin Professor of Accounting (standing) and Professor Daniel Houlihan, Emeritus Professor of Business Law (seated at right).

The College of Health, Education, and Human Resources

Dr. Joseph Fusaro, Acting Dean

The College of Health, Education, and Human Resources includes four departments which have enjoyed a long tradition of excellence. The College was established in 1987 in response to the unique needs of students preparing to enter directly into a variety of professional fields. All of this College's programs give students internship experience and lead to appropriate professional certification.

EDUCATION

DR. FUSARO, *Chairperson*
PROF. CURTIS, *Director of Secondary Education*
DR. KIMBLE, *Director of Elementary Education*

Through its various programs, the Department of Education endeavors to contribute to the improvement of education by preparing informed, inquiring, and skilled professionals for positions in the educational community. More specifically, the Department aims to provide persons with a breadth and depth of knowledge and understanding in their specialized area of professional practice and to provide training to insure competence in the specific area of functioning. To this end, individual program competencies have been developed. Additionally the Department endeavors to offer opportunities for continued professional growth to practicing educators, to assist in the educational growth and development of the community served by the University, and to foster the advancement of knowledge through research in education.

The Department of Education offers degrees in Secondary and Elementary Education, both leading to certification. Secondary Education concentrations lead to certification in:

Biology	English	German	Physics
Chemistry	French	Latin	Social Studies
Communication	General Science	Mathematics	Spanish

Elementary Education leads to state certification (Pennsylvania, K-6).

The Education Department's programs are accredited by the Pennsylvania Department of Education. The University is also accredited by the National Council for Accreditation of Teacher Education. These accreditation, reciprocity and interstate agreements between Pennsylvania and selected states assure that courses taken will be considered for certification in most states. Competency tests are required for Pennsylvania Teacher Certification.

A student may enter the secondary education program either as a major in education or in his/her subject area. However, in both cases the student must be approved by the Department and follow the prescribed courses if he/she desires certification. Specific requirements for each subject matter concentration are available from the Education Department. Students will be given a program curriculum guide upon approval of their entrance into the program. All aspects of the state approved program must be completed to ensure certification.

Double majors, including both a subject area and education, may be arranged in the case of exceptional students. These must be approved by both departments involved and by the dean. A specific program will be designed in each individual case. Double certification programs may also be arranged to improve the student's employment potential.

The Requirements and Curriculum Guide for Education majors provide the rules and regulations which must be followed to remain a candidate for certification and graduation.

EDUC. 101 Dr. Adams
Fundamentals of Adult Development and Experiential Learning
The course provides learners with a basic knowledge of adult learning and development theories as a framework for understanding themselves as learners. Through self-assessment of their learning styles, personality factors, value systems, interests, and previously acquired learning, they will gain an understanding of the factors which facilitate and/or inhibit their pursuit of higher learning. This course also assists learners in developing a portfolio of their learning experiences to be reviewed for college. Dexter Hanley students only: permission of instructor required.

EDUC. 110 Prof. Cannon
Values Development 3 credits
A course designed to acquaint the student with theories relating to value development: what values are, and how they are formed. The affective process, value systems, activities for value development suitable for use by parents, teachers and others involved in human relations will be covered. Open to all majors. (GE Area II)

EDUC. 113 Staff
Reading-Research 3 credits
(Formerly Educ. 3) This course is designed to increase a student's proficiency in reading. The following skill areas will be covered: comprehension, rate, vocabulary, critical analysis, research, and study skills. The lecture and laboratory approaches are utilized with the emphasis on individualized instruction using multi-level materials. (GE Area III)

EDUC. 121 Staff
The Foundations of Education II 3 credits
(Formerly Educ. 21) The characteristics of the public school system in the United States, the role of education in contemporary society, and current issues related to education are presented. (GE Area II)

EDUC. 180 Staff
Field Experience I 1 credit
(Formerly Educ. 23) This course requires students to report on classroom activities. Projects will be assigned to be carried out in basic education schools through observation and contact. Oral reports will be made regarding the observations.

SECONDARY EDUCATION

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
MAJOR	Teaching Area	Introductory Courses	3/4½	3/4½
COGNATE	Educ. 121	Foundations of Education		3
COGNATE	Educ. 180	Field Experience I		1
GE AREA I	Nat. Sci./Quant.	Elective	3	
GE AREA II	Psych. 110-Elec.	Fundamentals of Psych.*-Psych. Elec.*	3	3
GE AREA III	Communications	Electives	3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			16/17½	17/18½
		SOPHOMORE		
MAJOR	Teaching Area	Required or Elective Courses	6/8	6/8
COGNATE	Educ. 222-280	Educational Psych.-Field Experience II	3	1
GE AREA I	Nat. Sci./Quant.	Electives	3	3
GE AREA II	Soc./Behavioral	Electives*	3	3
GE AREA V	T/RS 122	Theology II		3
PHYS EDUC	Ph.Ed.	Physical Education	1	1
			16/18	17/19
		JUNIOR		
MAJOR	Teaching Major	Required or Elective Courses	6	6
COGNATE	Educ. 313-314	General Method & Planning—Subject Method	3	3
COGNATE	Educ. 380-340	Field Experience III—Reading in Secondary School	1	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 210	Ethics	3	
GE AREA V	ED/P 306	Philosophy of Education*		3
GE FREE	Elective	Elective	3	
			19	18
		SENIOR**		
MAJOR	Teaching Area	Electives		6
COGNATE	Educ. 440	Classroom Management	3	
COGNATE	Educ. 476	Planning in Student Teaching	2	
COGNATE	Educ. 477	Instruction in Student Teaching	3	
COGNATE	Educ. 478	Managing Classrooms in Student Teaching	2	
COGNATE	Educ. 479	Professional Growth	3	
GE AREA III	Communication	Elective		3
GE AREA V	Phil.-T/RS	Philosophy or Theology Elective		3
GE FREE	Electives	Electives		6
			13	18

TOTAL: 134/141 credits

* Consult with your advisor for specific certification requirements for certification areas. Comm. 100 and English 110 are recommended N.B. Students in the teaching areas of math and science will take humanities (GE AREA IV) courses in place of Natural Science/Quantitative (AREA I) courses where noted above.

** Semesters may be reversed at the discretion of the Director of Secondary Education Programs.

ELEMENTARY EDUCATION

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	Educ. 121-180	Foundations of Education-Field Exp. I		4
COGNATE	Educ. 110	Values Development	3	
GE AREA I	Math 104-Phys. 102	Math for Elem. Teachers-Earth Science	6	
GE AREA II	Psyc. 110-221	Fund. Psych-Childhood & Early Adolescence	3	3
GE AREA III	Comm. 100- Engl. 110	Fund. Speech-Written Comm.		6
GE AREA V	Phil. 120- T/RS 121	Intro. Phil-Theology I	3	3
PHYS ED	Phed.	Physical Education	1	1
			16	17
		SOPHOMORE		
MAJOR	Educ. 222-280	Ed. Psych.-Field Exp. II	3	1
MAJOR	Educ. 241	Found. Reading Instruction		3
COGNATE	Educ. 240-Nurs. 100	Early Childhood Educ.-Family Health	3	3
GE AREA I	Biol. 100	Modern Concepts of Biology	4	
GE AREA II	Geog. 134	Intro. to Geography	3	
GE AREA IV	PS 210-Engl. 130	State Government-Children's Lit.		6
GE AREA V	T/RS 122- Phil. 210	Theology II-Ethics	3	3
PHYS ED.	Phed.	Movement & Dance-Physical Education	1	1
			17	17
		JUNIOR		
MAJOR	Educ. 344-345	Math-Sci. Methods-Lang. Arts Methods	3	3
MAJOR	Educ. 346-347	Inst. Str. Reading-Soc. Stud. Methods	3	3
MAJOR	Educ 380	Field Experience III		1
COGNATE	Educ. 341-Educ. 342	Educ. Exceptional Child-Educ Media/Tech	3	3
COGNATE	NSCI 201-Educ. 112	Science/Human Environ-Eval. & Measurement		6
GE AREA I	Chem. 100	Elements of Chemistry	3	
GE AREA III	Art. 326	Integrating Art in the Elementary Classroom		3
GE AREA V	Elective	T/RS or Phil. Elective	3	
			15	19
		SENIOR *		
MAJOR	Educ. 440	Classroom Management		3
	Educ. 476	Planning in Student Teaching		2
MAJOR	Educ. 477-478	Instruction in Student Teaching-Managing Classrooms in		3
		Student Teaching		2
MAJOR	Educ. 479	Professional Growth		3
GE AREA II	Econ. 210	Essentials of Economic Theory	3	
GE AREA IV	Hist. 110 or 111-Mus. 100	History of U.S.-Understanding Music	6	
GE AREA IV	Engl. 115-Lit Elect.	Intro to Theatre-Literature Elective	6	
GE AREA V	ED/P 306	Philosophy of Education	3	
			18	13
			TOTAL: 132 cred	

* Semesters may be reversed at the discretion of the Director of Elementary Education Programs.

EDUC. 222 Staff
Educational Psychology 3 credits
(Formerly Educ. 22) The psychological basis of teaching strategies, classroom environment, learning, motivation, reinforcement, and evaluation will be taught. (GE Area II)

EDUC. 240 Prof. DiGiaimo
Early Childhood Education II 3 credits
(Formerly Educ. 108) The purpose of this course is to give students an introductory overview of the theory, research and practice of early childhood education. Consideration will be given to the educational process from the fetal stages on through the first three years of life as well as the early years of schooling.

EDUC. 241 Dr. Kimble
Foundations of Reading Instruction 3 credits
(Formerly Educ. 191) A basic course in reading. It provides an introduction to reading instruction and reading programs. The reading process as it relates to language acquisition and learning to read will be investigated. The readiness, reading skills, techniques and methods which are essential for effective reading will be examined.

EDUC. 280 Staff
Field Experience II 1 credit
(Formerly Educ. 24) The course is closely associated with Educ. 121, 222, and 180. Projects will be assigned to be carried out in basic education schools and other agencies through observation, tutoring, and oral/written reports.

ED/P 306 Staff
Philosophy of Education 3 credits
(Formerly ED/P 106) An examination of representative modern systemic philosophies of education with a critical analysis of the answers that each system of philosophy provides to the important questions concerning the nature of knowledge, value, man, and society. (Recommended as GE Area V elective for education majors.)

EDUC. 310 Staff
Special Topics in Education 1-3 credits
(Formerly Educ. 190) A series of courses dealing with specific educational issues, theories, ideologies, skills, methods, or other designated topics for individual or group study. Course is offered on student demand. (GE Area dependent on topic.)

EDUC. 313 Prof. Curtis
General Methods and Planning 3 credits
(Formerly Educ. 103; Prerequisite: Education 222) Methodology for setting direction in the classroom, creating a learning situation, developing the content, reinforcing and evaluating will be covered. Students will be involved with developing plans for teaching. (GE Area III)

EDUC. 314 Staff
Specific Subject Methods 3 credits
(Formerly Educ. 104; Prerequisite: Education 313) Utilizing knowledge of planning and teaching generally, students will be guided in the analysis of specific content and techniques for teaching that content. They will demonstrate their ability to carry out plans in "micro" teaching experiences. (GE Area III)

EDUC. 340 Staff
Reading in the Secondary School 3 credits
(Formerly Educ. 107) This course is the study of the reading process with emphasis placed on understandings and skills needed by secondary school students in their subject fields.

EDUC. 341 Prof. Cannon
The Education of the Exceptional Child 3 credits
(Formerly Educ 109) A general view of the field; historical background—both philosophical and legislative; survey of physical, mental and emotional handicaps and of giftedness; remedial and preventive practices; a look at the future.

EDUC. 342 Dr. Wiley
Educational Media and Technology 3 credits
(Formerly Educ. 111) A course in which students are expected to produce media appropriate for classroom use. The student is also expected to exhibit competency in the use of common education media equipment and the uses of computers. Students will also be introduced to modern and future forms of media technology appropriate for the classroom teacher.

EDUC. 343 Dr. Fusaro
Evaluation and Measurement 3 credits
(Formerly Educ. 112) This course is intended to acquaint prospective teachers with the various facets of test interpretation and test construction. Standardized achievement, diagnostic, and aptitude tests will be covered, along with teacher-made objective and essay tests. Emphasis will be placed on constructing valid and reliable tests by the teacher. The use and misuse of standardized tests and teacher-made tests will be discussed.

EDUC. 344 Dr. Wiley, Prof. DiGiaimo
Mathematics/Science Methods 3 credits
(Formerly Educ. 119) The course is designed to provide the elementary education major with planning and instructional strategies appropriate for use in the science and mathematics areas of the elementary curriculum. An analysis of content will be made in light of the needs of the elementary school, the elementary student and society.

EDUC. 345 Dr. Marino
Language Arts Methods 3 credits
(Formerly Educ. 120) This course is designed to provide the elementary major with a knowledge of the child's language acquisition. Planning for the instructional strategies used in teaching oral/written composition, grammar, listening, speaking, spelling and handwriting skills are examined.

EDUC. 346 Dr. Marino
Social Studies Methods 3 credits
(Formerly Educ. 121) The course is designed to provide the elementary major with a knowledge of the child's needs in the social sciences and the humanities. Planning for the instructional strategies used in teaching history, geography, and economics are examined.

EDUC. 347 Dr. Kimble
Instructional Strategies for Content Area Reading 3 credits
(Formerly Educ. 195) The course is designed to introduce students to procedures to teach functional reading skills in the elementary schools. Emphasis will be placed on the specialized vocabularies, concepts and study skills which are considered necessary for the comprehension of reading materials pertinent to content area subjects. Various resources and devices will be examined.

EDUC. 380 Staff
Field Experience III 1 credit
(Formerly Educ. 25) This course will be closely associated with the methods courses. An emphasis is placed on studying teaching techniques and with involvement in teacher activities in basic education schools.

EDUC. 440 Staff
Classroom Management and Discipline 3 credits
(Formerly Educ. 113) In-depth study of the rationale, theories, and techniques for creating a situation where learning can take place and for handling specific individual and group behavior problems in productive ways.

EDUC. 476 Staff
Planning in Student Teaching 2 credits
(Formerly Educ. 115) Preparation of actual teaching plans during student teaching.

EDUC. 477 Staff
Instruction in Student Teaching 3 credits
(Formerly Educ. 116) Involvement in implementing methods and techniques. Actual teaching on a full time basis under the supervision of classroom teachers and University supervisors.

EDUC. 478 Staff
Managing Classrooms in Student Teaching 2 credits
(Formerly Educ. 117) Involvement in management of the learning situation during student learning.

EDUC. 479 Staff
Professional Growth 3 credits
(Formerly Educ. 118) The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, evidence of growth and a commitment to improvement and ability to relate to others. This will include attendance and participation in a weekly seminar to analyze and discuss professional considerations and student teaching problems.

HUMAN RESOURCES

DR. STOUT, *Chairperson*
PROF. COLLINS, *Director of Human Services*
PROF. O'NEILL, *Director of Health Administration*

The Human Services curriculum is designed to develop in students the values, knowledge and skills necessary to work with people in a variety of settings and situations. The sequence of courses focuses on understanding normal and abnormal human adjustment across the lifespan and on developing skill in interventions designed to maximize human adjustment and development. Core requirements in the major emphasize values, knowledge, and skills common to all fields of human services, while electives allow students to develop competence in assisting specific populations. A four credit, 140 clock hour, internship experience is required of all majors.

The curriculum is geared toward students who have high social science interests as well as general scientific interest and aptitude in the social and behavioral sciences. The curriculum prepares students for entry-level positions in a variety of human services positions in private or public settings, or for graduate study in counseling, social work, or related social or behavioral science professions.

HUMAN SERVICES

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	HS 111	Intro. to Human Adjustment	3	
MAJOR	HS 112	Human Services Systems		3
COGNATE	Psych. 110	Fundamentals of Psychology	3	
GE AREA III	Communication*	Electives*	3	3
GE AREA III	CMPS 104	Comp. for Bus. & Soc. Sci.		3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120- T/RS 121	Intro to Phil.-Theology I	3	
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	HS 293	Research Methods in H.S.	3	
MAJOR	HS 211	Career Development		3
MAJOR	HS Elective	Human Services Elective	3	
COGNATE	Elective	Elective		3
GE AREA I	Nat Sci/Quant.	Elective	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS 122- Phil. 210	Theology II-Ethics	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	HS 311	Case Mgt. & Interviewing	3	
MAJOR	HS 312	Counseling Theories		3
MAJOR	HS Elective	Human Service Elective	3	3
COGNATE	Psych. 221 & 222	Child. & Adoles.-Adult. & Aging	3	3
COGNATE	Electives	Electives	3	3
GE AREA I	Nat. Sci./ Quant.	Elective	3	
GE AREA IV	Humanities	Electives		3
GE AREA V	Phil.-T/RS	Elective	3	
			18	15
		SENIOR		
MAJOR	HS 411	Group Dynamics	3	
MAJOR	HS 480	Internship in H.S.		4
MAJOR	HS Elective	Human Services Elective	3	
COGNATE	Electives	Electives	3	3
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil.-T/RS	Elective		3
GE FREE	Electives	Electives	3	6
			15	16

TOTAL: 128 credits

* Students will take COMM 100 and ENGL 110 unless exempted by the University. Students exempt from either COMM 100 or ENGL 110 will be expected to take ENGL 111. Students exempt from both COMM 100 and ENGL 110 will be expected to take ENGL 111 and an AREA III elective.

MINOR. A minor in Human Services requires H/HS 111, 112, 311, 312, 411, and one HS elective course.

HEALTH ADMINISTRATION

The Health Administration curriculum is designed to develop in students the values, knowledge, and skills necessary to enter the growing field of health administration. The sequence of courses includes a significant integration of the fields of health and business administration and includes a minor in business administration. As such, the curriculum is interdisciplinary and provides the student with a broad base of knowledge for securing entry-level positions with public and private agencies in positions concerned with the administration of preventive and remedial health, welfare, and rehabilitative services. The curriculum also provides a solid foundation for future graduate level education in various administrative disciplines such as human resources administration, public health, health and hospital administration, health planning, public administration, and business administration.

	Dept. and No.	Descriptive Title of Course	Credits FALL	SPRING
		FRESHMAN		
MAJOR	HADM 111	Introduction to Health Administration	3	
MAJOR	HADM 112	Health Systems		3
GE AREA I	Acc. 253-254	Financial Accounting-Managerial Accounting	3	3
GE AREA III	Communication *	Electives	3	3
GE AREA IV	Humanities	Electives	3	3
GE AREA V	Phil. 120-T/RS 121	Intro. to Philosophy-Theology I	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		SOPHOMORE		
MAJOR	HADM Electives	HADM Electives	3	3
COGNATE	Mgt. 251-Eco. 210	Legal Envir. of Bus.-Essentials of Econ. Theory	3	3
COGNATE	Electives	Electives	3	3
GE AREA I	Elective	Elective		3
GE AREA III	CMPS 104	Computing for Bus. & Soc. Sci	3	
GE AREA V	Phil. 210- T/RS 122	Ethics-Theology II	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			16	16
		JUNIOR		
MAJOR	HADM 390	Career Seminar	1	
MAJOR	HADM 393	Research in Health Administration	3	
MAJOR	HADM 311	Resource Development	3	
MAJOR	HADM 312	Health Finance		3
MAJOR	HADM 313	Health Administration		3
COGNATE	Mgt. 351-Mgt. 352	Organization and Management-Org. Behavior	3	3
COGNATE	Elective- Mkt. 351	Elective-Managerial Marketing	3	3
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil. 211-212	#Medical Ethics; #Business Ethics	3	3
			19	15
		SENIOR		
MAJOR	HADM 441	Issues in Health Administration	3	
MAJOR	HADM Elective	HADM Elective	3	
MAJOR	HADM 480	Internship in Health Administration		4
COGNATE	Elective	Elective		3
GE AREA IV	Humanities	Electives	6	3
GE FREE	Electives	Electives	3	6
			15	16
			TOTAL:	129 credi

* The Department recommends demonstration of communication skills by supervised examination: only secondarily by completing COMM. 100 and ENGL. 110.

Strongly recommended.

MINOR. A minor in Health Administration requires 18 credits distributed as follows: HADM 111, 112, 312, and 313, and any other two HADM courses.

HS 001 Staff
Residence Life: Theory and Practice 0 credits
(Formerly H/HS 02) Introduction to the Resident Assistant position on the University of Scranton residence life staff. Communication skills, conflict resolution, crisis intervention and referral, development of community in a residence facility, and the personal development of RAs as staff members will be stressed. ENROLLMENT LIMITED TO RESIDENT ASSISTANTS. NOT FOR ACADEMIC CREDIT.

HS 111 Staff
Introduction to Human Adjustment 3 credits
(Formerly H/HS 11) Introduction to human adjustment throughout the life span. Focuses on discrimination of normal and abnormal behavioral and emotional responses to developmental life stages and to common developmental concerns.

HS 112 Staff
Human Services Systems 3 credits
(Formerly H/HS 12) Examines the human service systems and institutions which have evolved as a response to human need. Explores both the effect of social problems on individuals and families and the service systems designed to alleviate such problems.

HS 201 Staff
Communication Skills for Health Professionals 3 credits
Communication skills and techniques necessary for health professionals are discussed. Emphasis is placed integration of both physical and psychological aspects of patient concerns. MAY NOT BE APPLIED TOWARD THE REQUIREMENTS FOR A MAJOR IN HUMAN SERVICES.

HS 211 Staff
Career Development 3 credits
(Formerly H/HS 13) Explores theories of career choice and adjustment. Emphasis will be placed upon methods and resources for facilitating career development throughout the lifespan. Career education, computerized information systems, and decision-making methods will be considered along with innovative approaches for placement of special needs populations.

HS 221 Staff
Physical Disabilities 3 credits
(Formerly H/HS 115-116) Selected physical conditions and/or disabling conditions are examined with particular emphasis on body systems involved, treatment possibilities, residual function limitations, and psychological impact of each condition.

HS 222 Staff
Mental Retardation 3 credits
Etiology, diagnosis, assessment, treatment, and prevention of mental retardation and developmental disabilities are examined. Emphasis will be placed on innovative and community-based treatment approaches.

HS 223 Staff
Psychiatric Rehabilitation 3 credits
An examination of the problems associated with mental and emotional disturbances. Emphasis is placed on contemporary modalities of treatment as they relate to community mental health programs, and innovative non-medical treatment approaches. Critical issues in mental health will be discussed.

HS 231 Staff
Health and Behavior 3 credits
(Formerly H/HS 118) Focuses on stress which affects thoughts, emotions, and the body. Stress diseases of adaption include cancer, Type A Behavior, GI tract disorders along with stress-related thought disorders and emotional disturbances. Students learn to apply relaxation, cognitive restructuring, and record-keeping in the treatment of their own as well as others' health.

HS 232 Staff
Crisis Intervention 3 credits
Theory and practice of crisis intervention as applied to common crisis situations such as suicide, battering, violent behavior, post-traumatic stress disorder, substance abuse, sexual assault, and personal loss.

HS 234 Staff
Marital and Family Counseling 3 credits
Theories of family counseling will be presented with specific attention to the structural and strategic approaches. A variety of family counseling techniques and stages will be learned through the use of role play and videotaping. The utilization of family counseling will be discussed. (Also listed as HD 234.)

HS 235 Staff
Administration in Human Services 3 credits
Focuses on the development of skills and knowledge related to program and organizational development, and community-wide planning in human services. Topics include organizational theory applied to human service settings, consultation, supervision, planning, funding, and training.

HS 236 Staff
Recreational Therapy 3 credits
(Formerly H/HS 111) Designed to develop an understanding of purpose, organization, administration and delivery of recreational therapy services for the handicapped.

HS 284 Staff
Special Topics 3 credits
Courses developed to provide in-depth coverage of specific topics in human services. Course title will be provided in advance of registration. May be used only once to satisfy major or minor elective requirements.

HS 293 Staff
Research Methods in Human Services 3 credits
An introduction to descriptive and inferential statistics used in the social and behavioral sciences. Topics include descriptive statistics, sampling, correlation, regression, hypothesis testing, and inferential statistics.

HS 311 Staff
Case Management and Interviewing 3 credits
(Formerly H/HS 101) The role of the human service professional as a case manager or coordinator of services is examined. Initial interviewing skills and techniques are discussed with an emphasis on case conceptualization, problem identification, goal selection, evaluation, and follow-up.

HS 312 Staff
Counseling Theories 3 credits
(Formerly H/HS 102) The role of the human services professional as an individual counselor or caseworker is examined. Theories and techniques as well as problems in individual counseling are explored.

HS 411 Staff
Group Dynamics 3 credits
(Formerly H/HS 103) A basic understanding of group dynamics and individual behavior in groups is presented. Methods of developing and organizing group programs are stressed. Students participate in a group experience.

HS 421 Staff
Addictions 3 credits
(Formerly H/HS 117) Physical, social and psychological aspects of addiction: biochemical, nutritional, psychodynamic, and behavioral approaches to assessment, treatment, and prevention of addiction. Emphasis is on drug abuse and alcoholism.

HS 422 Staff
Substance Abuse Education 3 credits
(Formerly H/HS 135) Design, implementation, and evaluation of substance abuse education and prevention programs.

HS 423 Staff
Legal and Health Aspects of Substance Abuse 3 credits
(Formerly INTD 45) Legal and health consequences of substance abuse are examined. Special attention is given to the role of the substance abuse specialist in relationship to health care and legal systems.

HS 480 Staff
Internship in Human Services 4 credits
(Formerly H/HS 199) The internship is a significant clinical and educational capstone experience that ends the four year program and involves a supervised practical experience in a community agency providing human services. It provides both a practical experience in the student's field and an opportunity to integrate knowledge from a variety of courses into a working professional philosophy. Students will spend a minimum of 120 hours in the field placement and a minimum of 18 hours in on-campus staffing sessions. A semester project is required. Students may take the internship twice for a total of 8 credits. Offered only during the Spring semester. An insurance fee is charged.

HEALTH ADMINISTRATION

HADM 111 Staff
Introduction to Health Administration 3 credits
An initial overview of health care in the United States and the professions involved. Emphasis is placed on the values of health care providers and administrators.

HADM 112 Staff
Health Systems 3 credits
The nature and organization of health care in the United States. Factors affecting the delivery of such services are identified to provide an understanding of the evolution and dynamics of the health care systems as well as prospects for future development.

HADM 211 Staff
Marketing Health Care 3 credits
(Formerly HADM 121) The development of health care services and their distribution is related to strategic planning, public relations, and the development of marketing plans.

HADM 212 Staff
Health Administration Law 3 credits
(Formerly HADM 122) The legal and regulatory environment of health care and the administration of health services.

HADM 213 Staff
Supervising Health Professionals 3 credits
(Formerly HADM 123) Principles and practices of direct supervision of personnel including motivation, leadership, and various personnel functions.

HADM 284 Staff
Special Topics 3 credits
(Formerly HADM 196) Selected topics of current interest in health administration are offered on a variable basis including administering long-term care facilities, group behavior in organizations, health promotion, etc.

HADM 311 Staff
Resource Development 3 credits
(Formerly HADM 132) Proposal writing for program planning and/or soliciting funds from public and private sources as well as the role of public relations and development in the creation of organizational resources.

HADM 312 Staff
Health Finance 3 credits
(Formerly HADM 133; Prerequisite: Acc. 253 and 254) The costs of health care in society with emphasis ón financial concepts and reimbursement mechanisms for health providers.

HADM 313 Staff
Health Administration 3 credits
(Formerly HADM 141) Role and functions of the supervisory and administrative structure, including Boards of Directors, in health agencies, systems, and organizations.

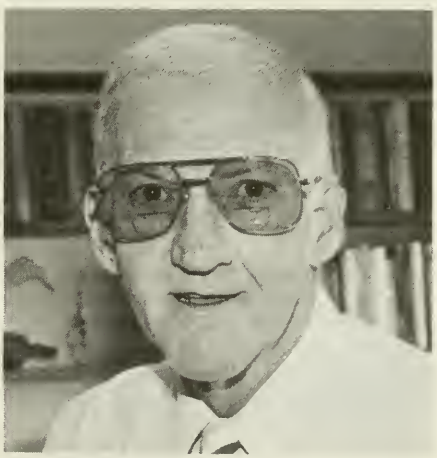
HADM 390 Staff
Career Seminar 1 credit
(Formerly HADM 11; Majors only) Seminar in which students appraise their present status and develop specific written educational and career plans for future coursework, career entry, and/or graduate school.

HADM 393 Staff
Research in Health Administration 3 credits
(Formerly HADM 131; Majors only) Principles and processes of research in health administration including literature review, research design, data collection techniques, statistical analysis, and professional writing in generating new knowledge and in using research in administration.

HADM 411 Staff
Long Term Care Administration 3 credits
Designed to introduce the student to Long Term Care (LTC) facility administration. Emphasis is placed on the differences between acute and long-term levels of care, types of LTC facilities, and special concerns involving the LTC resident. Pre-requisite for this course: HADM 141.

HADM 441 Staff
Issues in Health Administration 3 credits
(Formerly HADM 142; Senior level, majors only) Issues in health care administration are selected by students for in-depth analysis, study, and discussion.

HADM 480 Staff
Internship in Health Administration 4 credits
(Formerly 199; Prerequisites: 18 HADM credits or approval of Program Director) The internship is a significant clinical and educational capstone experience that ends the four year degree program and involves a supervised practical experience in a community agency or organization providing health services. It provides both a practical experience in the student's field and an opportunity to integrate knowledge from a variety of courses into a working professional philosophy. Students will spend a minimum of 120 hours in the field placement and a minimum of 18 hours in on-campus staffing sessions. A semester project is required. Students may take the internship twice for a total of 8 credits. Offered only during the Spring semester. An insurance fee is charged.



Dr. John Stout, Chairperson
Department of Human Resources

NURSING

DR. BAILEY, *Chairperson*
DR. NARSAVAGE, *Director of the R.N. Program*

The purpose of the Baccalaureate nursing program is the preparation of qualified persons for entry-level practice of professional nursing in hospitals and community health settings. The program also provides the academic foundations for advanced study in nursing.

High school graduates are admitted as freshmen into the program which leads to a Bachelor of Science degree with a major in nursing. Total class enrollment is limited in consideration of educational and clinical resources. The curriculum can be completed in eight regular semesters of full-time study or four academic years. Students are encouraged to enroll in general education courses during January intersession and summer sessions to reduce the fall and spring term schedules. Transfer students will be considered on a space available basis.

The nursing curriculum is approved by the Pennsylvania State Board of Nurse Examiners. The curriculum is based on a planned progression of courses so arranged as to build upon and develop knowledge and skills at levels of increasing competency. Therefore, all required courses must be taken in sequence. For progression through the Nursing program, a minimum average grade of C must be attained in the prerequisite Natural Science courses (BIO 110-111, CHEM 110-111). A minimum grade of C must be attained in the prerequisite Natural Science courses BIO 210, MATH 204, and in each Nursing course.

Prior to the junior and senior year, students enrolled in the nursing program must present a certificate as evidence of having completed the Cardiopulmonary Resuscitation Basic Life Support course or Modular course offered by the American Red Cross or the American Heart Association.

In addition to the general University tuition and fees listed in the Student Expenses section, students majoring in nursing assume the responsibility for the following: uniforms and other required clinical accessories, yearly physical examinations, biennial eye and dental examinations, immunizations, comprehensive/achievement tests, liability insurance and any travel expenses incurred. Students must also provide their own transportation to and from agencies utilized for clinical laboratories, and have access to a car during their Community Health laboratory in the senior year.

Applicants and students should be aware that Pennsylvania Law prohibits licensure of individuals convicted of felonies related to controlled substance and may prohibit licensure if there is a conviction for any felonious act. For details, see the Admissions Brochure and the Student Handbook of the Department of Nursing.

Upon graduation the students will be eligible for admission to examination for the registered nurse licensure. The department of Nursing is accredited by the National League for Nursing.

NURS. 100 Staff
Family Health 3 credits
(Formerly Nurs. 10; For non-nursing majors.) Concepts and principles related to the promotion and maintenance of optimal family health. Considers factors pertinent to health needs and health practices throughout the life cycle. (GE AREA I, unless Nurs. 111 or Nurs. 112 used in Area I.)

NURS. 111 Prof. Bohlen, Prof. Harrington
Women's Health 3 credits
(Formerly Nurs. 8; No Prerequisites/Open to all students) Focus on physiologic, emotional, social, economic, and historic issues affecting women's health. Exploration of strategies which will assist women to take an active role as health care consumers. Three hours lecture. (GE Area I, unless Nurs. 112 or Nurs. 100 used in GE Area I.)

NURS. 112 Prof. Weller & Staff
Sexual Development Through the Life Span 3 credits
(Formerly Nurs. 9; No Prerequisite/Open to all students) This course explores sexual development, factors which impact on sexual roles and expression, and health and social issues as they relate to sexual function. Emphasis is placed on developing sexual awareness of the student. Three hours lecture. (GE Area I, unless Nurs. 111 or Nurs. 100 used in GE Area I.)

NURS. 210 Staff
Fundamentals of Health Care 2 credits
(Formerly Nurs. 11; For Physical Therapy majors only.) Introduction to selected principles and techniques of health care such as assessment of vital signs, asepsis, that are basic to safe client care and applicable to the practice of physical therapy. 1 hour lecture. 2 hours laboratory.

NURS. 240 Staff
Introduction to Nursing Concepts 3 credits
(Formerly Nurs. 12; Prerequisite: Sophomore status in Nursing Program) An exploration of the core concepts of the client, health, nursing and health patterns. Historical, philosophical and social development of nursing and the role of the professional nurse presented. Understanding of health and health continuum in the broader perspective of the human person, the physiological, psychological, developmental, and socio-cultural modes. Introduction of the nursing process as it relates to the development of cognitive, interpersonal, and psychomotor skills to attain and maintain an optimal level of health. 3 hours lecture.

NURSING

	Dept. and No.	Descriptive Title of Course	Credits FALL	Credits SPRING
		FRESHMAN		
COGNATE	Chem. 110-111	Introductory Chemistry	4	4
COGNATE	Biol. 110-111	Structure & Function of the Human Body	4	4
GE AREA II	Psych. 110	Fundamentals of Psychology*		3
GE AREA IV	Humanities	Electives	6	3
GE AREA V	Phil. 120	Introduction to Philosophy	3	
GE AREA V	T/RS 121	Theology I		3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			18	18
		SOPHOMORE		
MAJOR	Nurs. 240	Introduction to Nursing Concepts	3	
MAJOR	Nurs. 280	Nursing I		6
COGNATE	Biol. 210	Intro. Medical Microbiology	3	
COGNATE	Math 204	Special Topics of Statistics		3
GE AREA II	Psych. 221	Childhood and Adolescence*	3	
GE AREA II	Psych. 224	Personality*	3	
GE AREA III	Communication	Elective	3	3
GE AREA IV	Humanities	Elective	3	
GE AREA V	Phil. 210-212	Ethics—Medical Ethics*	3	3
PHYS EDUC	Ph. Ed.	Physical Education	1	1
			19	19
		JUNIOR		
MAJOR	Nurs. 340-341	Clinical Pathology I-II	3	3
MAJOR	Nurs. 380	Nursing II	9	
MAJOR	Nurs. 381	Nursing III		9
GE AREA IV	Humanities	Electives	3	3
GE AREA V	T/RS 122	Theology II	3	
			18	15
		SENIOR		
MAJOR	Nurs. 480	Nursing IV	9	
MAJOR	Nurs. 493	Research in Nursing	3	
MAJOR	Nurs. 481	Nursing V		9
GE AREA V	T/RS-Phil.	Elective		3
GE FREE	Electives	Electives (* Medical Soc.)	3	3
			15	15

TOTAL: 137 credits

* Departmental Recommendation

NURS. 241 Staff
Perspectives in Professional Nursing 3 credits
(Formerly Nurs. 13; Prerequisites: Sophomore status in the Nursing Program, completion of Validation Examinations. Registered Nurse students only.) Perspectives in professional nursing explores concepts incorporated in the philosophy, organizing framework and curriculum structures of the nursing program. Integration of the health patterns and nursing process in the delivery of professional nursing care is introduced. Pertinent issues impacting on the nursing profession are addressed.

NURS. 242 Prof. Narsavage
Nursing Related to the Assessmen of Health Patterns 6 credits
(Formerly Nurs. 17; Prerequisites: Sophomore Status, Nurs. 241, Registered Nurse Students Only.) Focus on the professional nurse's role as caregiver in assessing, diagnosing, and planning interventions of adaptive health patterns in individuals. Application of the nursing process to well persons and to individuals and families with alternations in health patterns. Exploration of concepts for planning holistic health care. Four hours lecture, 6 hours laboratory.

NURS. 280 Prof. Narsavage
Nursing I
Nursing Related to Health Patterns 6 credits
(Formerly Nurs. 14; Prerequisite: Sophomore status in the nursing program) Development of beginning psychomotor and assessment skills necessary for the promotion of optimal health as a care-giver. Focus on the professional nurse's role in assessing and diagnosing the developmental, physiological, psychological, and socio-cultural dimensions of adaptive health patterns in individuals with a stable health status. 4 hours lecture and 6 hours laboratory.

NURS. 281 Staff
Applications of Clinical Pathophysiology Related to Health Patterns 3 credits
(Formerly Nurs. 15; Prerequisites: Sophomore status, Nurs. 241, Registered Nurse Students only.) Clinical Pathophysiology focuses on the adaptive processes of illness in the individual. Concepts dealing with complex alterations in all health patterns are explored and related to specific alterations in client health. The course is concerned with descriptions of pathophysiology and psychopathology and their manifestations.

NURS. 310 Dr. Bailey
Understanding Transcultural Health Care 3 credits
(Formerly Nurs. 140; Prerequisite: Completion of Sophomore year-not limited to nursing majors). This course will focus on exploring values, beliefs and lifestyles of diverse cultural groups in order to expose the student to multi-cultural concepts of health promotion and maintenance. (GE Free; open to all majors in the Health Care Field).

NURS. 311 Prof. Narsavage
Computer Applications in Nursing 3 credits
(Formerly Nurs. 142; Prerequisite: Junior status in Nursing Program or RN). Designed for nursing majors who wish to learn computer capabilities for nursing applications in ways that do not involve programming. Emphasis is on interactive computer experience as an introduction to disk-operating systems, and word processing, computer-assisted instruction, file management, data-base management system, care-planning, software evaluation and research access. (GE Free).

NURS. 312 Staff
Nursing the Older Adult 3 credits
(Formerly Nurs. 150; Prerequisite: Junior status in nursing program) Focus on the Professional nurse's role of caregiver, advocate and teacher in promoting and maintaining adaptive responses of the older adult experiencing alterations in health patterns. Emphasis placed on multidimensional assessment factors and interventions in meeting bio-psycho-social needs. (GE Free).

NURS. 340 Dr. Zalon
Clinical Pathology Related to Health Patterns I 3 credits
(Formerly Nurs. 101; Prerequisites: Chemistry 110-111, Biology 110-111, Biology 210) Physical and psychosocial adaptations in response to illness in clients. Concepts dealing with self perception-self concept, sleep-rest, and activity-exercise health patterns are explored and related to specific alterations in clients' health status; relationship of nutrition and pharmacology to pathophysiology and psychopathology. 3 hours lecture.

NURS. 341 Dr. Zalon
Clinical Pathology Related to Health Patterns II 3 credits
(Formerly Nurs. 102; Prerequisite: Nurs. 340) Physical and psychosocial adaptations in response to illness in clients. Concepts dealing with nutrition metabolic, sexuality-reproductive, role-relationship, elimination, and cognitive-perceptual health patterns are explored and related to specific alterations in clients' health status; relationship of nutrition and pharmacology to pathophysiology and psychopathology. 3 hours lecture.

NURS. 380 Prof. Harrington, Dr. Garrett
Nursing II
Nursing the Individual 9 credits
(Formerly Nurs. 103; Prerequisites: Nursing 240, Nursing 280, Corequisite: Nursing 340) Focus on the professional nurse's role as care-giver, advocate and teacher in restoring the physiological and psychosocial adaptive responses of the individual experiencing alternations in the health patterns of self perception-self concept, sleep-rest and activity-exercise. Emphasis placed on the planning and implementation of the nursing process in meeting health needs. 4 hours lecture and 15 hours laboratory.

NURS. 381 Prof. Bohlen, Dr. Rinaldi
Nursing III
Nursing the Individual/Family 9 credits
(Formerly Nurs. 104; Prerequisite: Nursing 380; Corequisite: Nursing 341). Focus on the professional nurse's role as caregiver, advocate and teacher in restoring adaptive responses of the individual and family experiencing alternations in health patterns of sexuality-reproductive, nutrition-metabolic, role-relationships. Emphasis placed on the planning and implementation phases of the nursing process in meeting health needs. 4 hours lecture and 15 hours laboratory.

NURS. 480 Prof. Weller, Dr. Narsavage
Nursing IV 9 credits
Nursing the Individual/Family/Community
(Formerly Nurs. 121; Prerequisite: Nursing 381) Focus on the professional nurse's role as care-giver, advocate and teacher in promoting and restoring adaptive responses of the individual, family and community experiencing alternations in the health patterns of elimination, cognitive-preceptional, coping-stress-tolerance and value-belief. Emphasis placed on the planning and implementation phases of the nursing process in meeting health needs. 4 hours lecture and 15 hours laboratory.

NURS.480 Staff
Nursing IV 6 credits
(Prerequisites: Senior Status in the University and Nursing Program, successful completion of Validation Examinations. Registered Nurse Students only). Focus on the professional nurses's role as caregiver, advocate, and teacher in promoting and restoring adaptive responses of the individual, family and community experiencing alterations in the health patterns of elimination, cognitive-perceptual, coping-stress-tolerance, and value belief. Emphasis is placed on the planning and implementation phases of the nursing process in meeting health needs of community clients and clients with complex medical-surgical problems. Two hours lecture and twelve hours laboratory.

NURS. 481 Prof. Desmond, Staff
Nursing V
Synthesis of Nursing Concepts 9 credits
(Formerly Nurs. 124; Prerequisite: Nursing 480) Focus on the professional nurse's role as leader/manager in promoting, restoring and maintaining adaptive responses in individuals experiencing complex alternations in health patterns. Continued use of the nursing process to implement and to evaluate nursing care of the individual, family, community and groups in collaboration with the nursing and interdisciplinary health teams. 2 hours lecture and 21 hours laboratory.

NURS. 493 Dr. Bailey
Research in Nursing 3 credits
(Formerly Nurs. 123; Prerequisite: Senior status in the nursing program, Math 204). Introduction to and application of the principles and process of research in professional nursing practice. Study of research design, data collection technique, interpretation and critique of nursing research literature and reports and the development of the ability to become a discriminating consumer of nursing research. 3 hours lecture.

PHYSICAL THERAPY

DR. BARNES, *Chairperson*

The department offers an educational program leading to the Bachelor of Science degree in Physical Therapy which blends professional studies with a broad general education. The curriculum is designed to prepare students for entry-level practice with a foundation of knowledge, skills, ideals and values necessary for productive participation in the profession of Physical Therapy.

The program is accredited by the American Physical Therapy Association and graduates are eligible for admission to licensure examinations required for practice in all states.

Admission of students is normally restricted to the Freshman class. The admission of qualified applicants is done on a competitive basis. A student's matriculation in the pre-professional years is contingent upon satisfactory completion (C or better) of department pre-requisites, as well as successful completion of the majority of general University requirements necessary for graduation. The number of qualified applicants admitted to the Physical Therapy Curriculum is also dependent upon available academic and clinical resources.

The professional phase of the program begins in the Junior year. It includes both academic and clinical components arranged sequentially for the progressive development of the competencies necessary for patient assessment, evaluation, treatment planning and implementation. Clinical problem-solving, management and administration of physical therapy services and interpersonal communications are also important segments of the curriculum.

Experience in direct patient care and administration of patient care services is provided through clinical rotations through physical therapy services located in affiliated health care institutions and agencies. Advancement to professional studies (Junior year) is automatic for pre-professional students (Freshman and Sophomore years) who satisfy the following criteria: (a) completion of all specified pre-professional, pre-requisite and general education requirements; (b) attainment of a minimum grade of C in all Department pre-requisites in the natural sciences and department courses specified by the pre-professional curriculum; (c) maintenance of a 2.50 QPI (Fall, Intersession, and Spring semesters) Freshman year and a 2.75 QPI (Fall, Intersession and Spring semesters) Sophomore year; (d) written documentation of a minimum of two weeks of volunteer or work experience with a licensed physical therapist (the letter of recommendation should address the time spent in the facility, the nature of the volunteer/work experience and the potential the student has to be a physical therapy practitioner) and (e) a positive evaluation of personal abilities and aptitudes by Department faculty responsible for courses provided in the pre-professional portion of the Curriculum.

Completion of general education courses during Intersession and/or summer will be necessary to reduce Fall and Spring term schedules. All MAJOR courses must be taken in the prescribed sequence. All professional students will be required to satisfactorily complete the clinical field experiences and internships specified. Related costs associated with liability insurance, uniforms, travel, meals, temporary housing, and attainment and maintenance of CPR certification are the responsibility of individual students.

Approval has been granted for a Masters entry-level program in Physical Therapy. This five-year degree program will begin Fall 1991 and will replace the current Bachelors degree program.

PT. 140 Staff
Introduction to Physical Therapy 1 credit
(Formerly PT 100) An overview of the development of the profession of physical therapy. Current practice sites/settings are reviewed with consideration of traditional and emerging roles and responsibilities of the physical therapist. Information related to professional organizations and purposes is discussed. Majors only. 1 hour lecture/week.

PT. 240 Dr. Barnes, Staff
Basic Techniques in Patient Management 2 credits
(Formerly PT 101) This course is designed to instruct the learner in basic patient management, evaluation and teaching techniques. Patient transfer procedures, positioning, draping, bandaging and activities of daily living will be addressed. Selection, measurement and utilization of assistive devices for ambulation and introduction to evaluation of range of motion and muscle strength will be explored. Comprehensive examination of medical terminology will be implemented. Majors only. 1 hour lecture, 2 hours lab/week.

PT. 245 Dr. Mattingly
Human Anatomy for Physical Therapy 5 credits
(Formerly PT 105) In-depth study of gross human anatomy emphasizing structural and functional relationships of skeletal, muscular, circulatory, and nervous structures comprising the head, neck, trunk and extremities. Organic systems relevant to physical therapy practice are also examined. Human dissections are included. Majors only. 3 hours lecture, 4 hours lab.

PT. 340 Prof. Kosmahl, Staff
Physical Therapy Procedures I 3 credits
Introduction to physical therapy procedures.
(Formerly PT 102) Problem-oriented patient evaluation and treatment planning is emphasized through coordinated classroom and clinical case-study approach. Lectures and laboratory practice in selected evaluation techniques and therapeutic procedures. Evaluation of the musculoskeletal system, appropriate utilization of thermotherapy and therapeutic massage techniques are presented. Majors only. 2 hours lecture, 2 hours lab/week.

PHYSICAL THERAPY

	Dept. and No.	Descriptive Title of Course	Credits FALL	INT.	SPRIN
		FRESHMAN			
MAJOR	PT 140	Intro. to Physical Therapy	1		
COGNATE	Chem. 110-111	Introductory Chemistry	4		4
COGNATE	Biol. 110-111	Structure/Function Human Body	4		4
COGNATE	Math 103	Pre-Calculus Mathematics		4	
GE AREA II	Psych. 110*	Fundamentals of Psychology*			3
GE AREA III	Communications	Elective**	3		
GE AREA IV	Humanities	Humanities Electives		3	3
GE AREA V	Phil. 120	Introduction to Philosophy	3		
GE AREA V	T/RS 121	Theology I			3
			15	7	17
		SOPHOMORE			
MAJOR	PT 240	Basic Techniques in Patient Management			2
MAJOR	PT 245	Human Anatomy for Physical Therapy			5
COGNATE	Phys. 120-121	General Physics I-II	4		
COGNATE	Biol. 245	General Physiology	4½		
COGNATE	Nursing 210	Fundamentals of Health Care	2		
GE AREA II	HS 201	Communication Skills for Health Professionals			3
GE AREA III	Communications	Elective**		3	
GE AREA IV	Humanities	Humanities Electives	6		3
GE AREA V	Phil. 210	Ethics		3	
GE AREA V	T/RS 122	Theology II	3		
			19½	6	17
		JUNIOR			
MAJOR	PT 340-341	Physical Therapy Procedures I-II	3		3
MAJOR	PT 350-351	Therapeutic Exercise I-II	3		3
MAJOR	PT 345	Neuroscience	5		
MAJOR	PT 380	Field Experience I		1½	4
MAJOR	PT 360	Medical/Surgical Lectures I			2
MAJOR	PT 393	Introduction to Clinical Research			3
MAJOR	PT 346	Concepts in Pathology	2		
MAJOR	PT 375	Kinesiology and Pathokinesiology	4		
MAJOR	PT 378	Developmental Pediatrics			3
GE AREA V	Phil. 212	Medical Ethics			3
			17	1½	16
SUMMER	PT 381	Field Experience II 2 crds. (5 wks. 40 hrs. a week)			
		SENIOR			
MAJOR	PT 460	Medical/Surgical Lectures II	2		
MAJOR	PT 440	Organization/Mgt. in P.T.	3		
MAJOR	PT 451	Rehabilitation	5		
MAJOR	PT 493	Scientific Inquiry	2		
MAJOR	PT 450	Therapeutic Exercise III	5		
MAJOR	PT 480	Clinical Internships			8
GE AREA IV	Humanities	Humanities Elective		3	
GE AREA V	T/RS Phil.	Electives		3	
			17	6	8

* Psych. 110 is recommended;
** Engl. 110 and Comm. 100 recommended.
HS 201, Communication for Health Professionals is recommended.
Phil. 212, Medical Ethics, is recommended.

TOTAL: 149 credits

PT. 341 Prof. Kosmahl, Staff
Physical Therapy Procedures II 3 credits
(Formerly PT 103) Lectures and laboratory practice in selected evaluation techniques and therapeutic procedures. Management of cardiac and pulmonary dysfunction is presented. The clinical use of electrotherapy as a form of therapeutic intervention and as an evaluative tool is presented. Majors only. 2 hours lecture, 2 hours lab/week.

PT. 345 Dr. Mattingly
Neuroscience 5 credits
(Formerly PT 108) Examination of the development and gross and cellular organization of the nervous system in man with consideration of its physiologic properties and probable mechanisms of information reception, transmission, and integration at spinal, supraspinal and cortical levels. Concepts of normal sensory-motor integration and neural center influence on motor activity and postural control will be reviewed. Clinical manifestations of dysfunctions relevant to physical therapy practice will be discussed. Majors only. 4 hours lecture, 2 hours lab/week.

PT. 346 Dr. Mattingly
Concepts in Pathology 2 credits
(Formerly PT 120) Introduction to basic principles of pathology with emphasis on disease concepts and mechanisms relevant to physical therapy practice. Majors only. 2 hours lecture/week.

PT. 350 Prof. Kosmahl, Staff
Therapeutic Exercise I 3 credits
(Formerly PT 104) This course serves as the student's introduction to the concepts of fitness and exercise. Normal responses to training, as well as patient responses to traditional therapeutic exercise regimens are presented. The course is divided into two units. Unit one introduces physical fitness as a function of strength, endurance, flexibility, power, skill, and body composition. Energy metabolism is discussed. Physiology of the neuromuscular system is reviewed as it relates to exercise. The effects of aging, disuse, immobilization, denervation and selected drug reaction on exercise performance is discussed. Laboratory exposure to techniques for the improvement of strength, flexibility, endurance, power, and skill is offered. Equipment exposure includes free weights, Cybex II, NK table, exercise mats, shoulder wheel, overhead pulleys, bicycle, ergometer and treadmill. Unit two presents an in depth analysis of cardiovascular pulmonary adaptations to exercise. Majors only. 2 hours lecture, 2 hours lab/week.

PT. 351 Prof. Kosmahl
Therapeutic Exercise II 3 credits
(Formerly PT 106) Course prepares student to practice entry level orthopedic physical therapy. Evaluation and treatment of musculoskeletal system dysfunction utilizing exercise, manual therapy (mobilization), and manual and mechanical traction are emphasized. Methods to clearly identify specific musculoskeletal problems, and to plan and implement appropriate physical therapy treatments are taught. Majors only. 2 hours lecture, 2 hours lab/week.

PT. 360 Dr. Malloy
Medical/Surgical Lectures I 2 credits
(Formerly PT 110) Physician lectures providing an overview of selected diseases and disorders commonly referred for physical therapy evaluation and treatment. Relevant medical and surgical interventions will be reviewed with consideration of their implications for comprehensive patient management. Emphasis on musculoskeletal disorders and rheumatic diseases. Majors only. 2 hours lecture/week.

PT. 375 Prof. Kosmahl
Kinesiology and Pathokinesiology 4 credits
(Formerly PT 121) Comprehensive study of normal human movement and movement dysfunction associated with selected forms of pathology. Emphasis is placed on joint arthrokinematics and the mechanics of muscle actions and biomechanical factors are discussed. Normal and pathological gaits are studied. Majors only. 3 hours lecture, 2 hours lab/week.

PT. 378 Staff
Developmental Pediatrics 2 credits
(Formerly PT 123) Comprehensive study of principles of development and developmental patterns of the infant and young child. Integration of growth and development concepts in assessment, program planning and treatment delivery for infants and children with developmental disabilities and neuromotor dysfunction. Emphasis is placed on age-related expectations and recognition of deviations from normal in the physical, psycho-motor, and perceptual areas of behavior. Majors only. 1 hour lecture, 2 hours lab/week.

PT. 380 Ms. Ebert-Baker
Field Experience I 1½ credits
(Formerly PT 109) A four week introduction to physical therapy practice. On-site observations and practice of selected behaviors and procedures with patients in affiliated treatment facilities and settings. Majors only.

PT. 381 Ms. Ebert-Baker
Field Experience II 2 credits
(Formerly PT 112) Intermediate physical therapy practice. Practice of selected behaviors and procedures with patients in affiliated treatment facilities and settings. Majors only.

PT. 393 Staff
Introduction to Clinical Research 3 credits
(Formerly PT 115) Introduction and application of statistical concepts, research design and the review and critical analysis of research relevant to physical therapy research is explored. Majors only. Three hours lecture/week.

PT. 440 Dr. Barnes
Organization and Management in Physical Therapy 3 credits
(Formerly PT 113) Introduction to the management process and specific information for the administration of physical therapy services in a variety of settings. Inter and intradepartmental relationships, management styles and theories, and quality assurance mechanisms are explored. Majors only. 3 hours lecture/week.

PT. 450 Staff
Therapeutic Exercise III 5 credits
(Formerly PT 122) Introduction to evaluation of movement disorders and treatment with neuromuscular disorders and treatment with neuromuscular re-education techniques. Overview of selected exercise theories and principles. Laboratory practice of related techniques. Majors only. 3 hours lecture, 4 hours lab/week.

PT. 451 Dr. Barnes, Staff
Rehabilitation 5 credits
(Formerly PT 114) The contemporary philosophy and scope of intermediate and long term rehabilitation. Continuation of the psychosocial and the introduction of sexuality aspects of disability. Evaluation of patients' functional abilities in activities of daily living and potential for rehabilitation. Lecture and laboratory preparation for patients with a diagnosis of (head trauma, stroke, amputations, burns, wounds, spinal cord injuries) will be explored. An introduction to wheelchair prescriptions and the evaluation and prescription to orthotics will be given. Majors only. 3 hours lecture, 4 lab hours/week.

PT. 460 Dr. Aronica
Medical/Surgical Lectures II 2 credits
(Formerly PT 111) Continuation of PT. 360. Physician overview of selected diseases and disorders commonly referred for physical therapy evaluation. Emphasis includes referrals by neurologists, neurosurgeons, cardiologists, dermatologists and thoracic surgeons. Majors only. 2 hours lecture/week.

PT 480 Ms. Ebert-Baker
Clinical Internships 8 credits
(Formerly PT 199) Intensive clinical practice on a full-time basis in at least two different physical therapy settings. Emphasis is placed on development of increased independence in the management of patients. Majors only.

PT. 493 Staff
Scientific Inquiry 2 credits
(Formerly PT 117; Prerequisite: Physical Therapy 393) This course considers conceptualization of research problems in physical therapy; the formulation of hypotheses; and the study of statistical analysis and data collection. Methods for presentation of research are discussed. A formal research proposal is required. Majors only. 2 hours lecture/week.

Dexter Hanley College

Dr. Shirley M. Adams, Dean

Dexter Hanley College has been an important part of the University for over half a century. It began as The Evening College, and in 1976 its mission was broadened to include service to the local community. Today Hanley College encompasses both the evening credit and the non-credit divisions of the University.

GOALS AND OBJECTIVES

Hanley College is committed to carrying out the Jesuit tradition by offering quality programs, quality services, and the opportunity for non-traditional students to accomplish their educational goals. Hanley College is dedicated to serving the local community and continually updates its programs and services in response to the community's ever-changing needs.

Hanley College serves primarily the following five groups:

a. Adults who wish to pursue an undergraduate degree in evening hours.
b. Adults who wish to pursue an undergraduate degree on a part-time basis.
c. Adults who want to obtain an associate degree or certificate.
d. Adults who want to improve their professional competence and/or to prepare themselves for new careers.
e. Adults who want to take advantage of educational programs for their own enrichment.

Hanley College is dedicated to helping students succeed by offering scholarship opportunities, life experience credits, and academic and career counseling.

DEGREE PROGRAMS

BACHELOR'S DEGREE

Accounting
Communication
Communication/English
Computer Information Systems
Criminal Justice
Economics
Education/Elementary*
Education/Secondary
Finance
Gerontology*
Health Administration
History
Human Services
Liberal Studies
Management
Nursing
Political Science
Production & Operations Management
Sociology

ASSOCIATE DEGREE

Associate In Arts
Business
Computer Information Systems
Criminal Justice
Electronics Engineering**
Health Administration
Human Services
Political Science
Public Administration
Social Relations/Gerontology

* Some daytime courses will be required.
** At present, physics, engineering and electronics engineering courses are available only during daytime hours.

Other baccalaureate majors are available to students who can attend a number of courses scheduled only during the day.

ADMISSION INFORMATION

Application for Admission

Admission to Dexter Hanley College at the University of Scranton is based on the applicant's academic record, on evidence of ability to do college work and benefit from it, and on indications of personal choice and desire to attend Hanley College. Application forms may be obtained from the DHC Office or may be requested by phone (941-7580).

Admission of First-Time Students

Dexter Hanley College operates on a rolling admissions plan which means that applications are processed on a continual basis as they are received. All candidates are informed of the admission committee's decision within two to three weeks after the completion of their file of supporting credentials.

To complete the application file, the candidate must have the following sent to the Hanley College Office:

1. A completed application form accompanied by the $10.00 application fee.
2. An official high school transcript or Graduate Equivalency Diploma (GED) including scores.

All prospective students are strongly encouraged to seek educational advising prior to the time of actual registration. Appointments for advising may be made by contacting the Hanley College Office (941-7580).

Admission of Transfer Students

Under the rolling admissions plan, transfer candidates may be considered on the basis of their last semester's courses and previous work at an accredited college or university. All candidates are informed of the admission committee's decision within two to three weeks after completion of their file of supporting credentials.

To complete the application file, a transfer candidate must have the following sent to the Hanley College Office:

1. A completed application form accompanied by the $10.00 application fee.
2. Official high school transcripts.
3. Official transcripts, mailed directly from every college or university attended.

In general, advanced standing will be granted for those subjects for which there are equivalent courses at the University, for which the student received grades of C or higher, and for those which are acceptable for the specific program the student chooses upon entering Hanley College. If the student changes major at a later date, another review of transfer credits will be made at that time, and the student will be given a written evaluation clearly indicating the transfer credits which are applicable to the new major. In all cases, transfer students must earn a minimum of 63 credits at the University of Scranton. Once a transfer student matriculates, the University policy on course transfers applies.

In the case of students transferring from other colleges within the University of Scranton, all coursework satisfactorily completed and applicable to the student's program of studies will be accepted in Dexter Hanley College.

If a student who has been dismissed from the University wishes to reapply for readmission to the University, he/she may do so no sooner than one full semester after the semester in which the dismissal took place. Readmission is not automatic; the student will need to demonstrate that the conditions which led to his/her dismissal will not present a continuing problem. If a student is dismissed a second time from the university, he/she may not apply for readmission.

Admission of Special Students

Special students are those who have already completed a B.A. or B.S. degree at the University of Scranton or another institution, visiting students (matriculated at another institution), some part-time students taking courses for "self-improvement," and men and women admitted to Certificate Programs. Admission as a special student does not imply admission to candidacy for a degree. Special students, except visiting students, must complete the application process for Hanley College.

Second Baccalaureate Degree

Persons with good scholastic records and a baccalaureate degree from a regionally accredited institution, who wish to earn a second baccalaureate degree, must apply to Dexter Hanley College.

Candidates for a second baccalaureate degree are expected to complete a minimum of 63 semester hours at the University of Scranton beyond the completion of the studies for the first degree and pursue a discipline disparate from the discipline of the first degree. No semester hours from the first baccalaureate degree can be used toward this 63 semester hour requirement.

University of Scranton graduates may also pursue a second baccalaureate degree through Dexter Hanley College. Grades for courses taken after completion of the requirements for the first baccalaureate degree will have no effect on the final Q.P.I. of the first degree.

Certificate Programs

Students wishing to complete a certificate program in Hanley College must meet the requirements specified by the appropriate department. (Details about the Certificate Programs currently available will be found on pages 180 - 184.)

Enrichment

Part-time students who do not plan to work toward a degree, a certificate, or a second major must also file the application for admission and must arrange for official transcripts to be sent to the Hanley College Office.

Visiting Students

Students matriculated in other colleges or universities, who wish to take courses for credit at the University of Scranton, must present the written approval (of their dean, or other authorized administrator) for all courses taken at the University of Scranton. Reader courses are not available for visiting students.

Visiting students need not complete an application form, nor are they required to submit transcripts. Visiting students taking more than one course in any semester are strongly advised to attend orientation.

Conditional Admission

Official transcripts of high school and previous college courses (where applicable) must be submitted to the Hanley College Office not later than three weeks before the beginning of classes each semester so that the student may be considered for official admission to the College. A student may, however, be admitted conditionally if the official transcripts have not been received in the DHC Office before classes begin.

The student whose official records have not been received within five weeks AFTER classes have begun will not be allowed to register for a subsequent term.

Upon receipt and evaluation of the official academic transcripts, the Hanley College Office will notify the student regarding acceptance or rejection. The student who is rejected will be allowed to finish the semester if he/she wishes to do so, but will not be allowed to register for subsequent terms. The student who is accepted will be subject to all rules, regulations, and policies of regularly enrolled students. Because official academic transcripts are necessary for effective academic advising, the student who enters under the conditional admission policy takes full responsibility for any errors in course selection and for all extra costs involved in making changes in class registrations.

AUDITORS

Hanley students may register as auditors with the approval of the dean. Although regular attendance is expected of auditors, they are not responsible for assigned work, quizzes, or examinations, and they receive no credit for the course. Students not enrolled as auditors who wish to change their status to that of auditor must do so by deadlines specified in the academic calendar (listed on the inside front cover of this catalog).

CAREER DEVELOPMENT GUIDANCE CENTER

Adult students interested in obtaining a two-year, vocational degree, who are unsure of their choice of field, may participate in this free guidance program. In the course of 12 weeks, participants will participate in small group meetings and will use computer software, designed to identify abilities and vocational preferences. A special career reference materials library is housed at the Center. Advisors in Hanley College, Career Services, and the Counseling Center are also available for consultation.

HANLEY COLLEGE BACCALAUREATE DEGREE PROGRAMS

Dexter Hanley College offers a number of baccalaureate degree programs in common with other colleges of the University.

The Hanley College baccalaureate programs have the same general education requirements (usually 63 credits) as the corresponding programs in the College of Arts and Sciences, the School of Management, and the College of Health, Education and Human Resources. The distribution table for these general education requirements is shown on pg. 21. It should be noted, however, that the physical education requirement, described on pg. 19, is waived for DHC students.

Curricular requirements for the following degree programs are specified on the pages indicated:

Accounting, pg. 139
Computer Information Systems, pg. 62
Criminal Justice, pg. 65
Economics (CAS program), pg. 68; (SOM program) pg. 142
Education, Elementary, pg. 154
Education, Secondary, pg. 153
Finance, pg. 145
Gerontology, pg. 125
Health Administration, pg. 158
History, pg. 94
Human Services, pg. 157
Management, pg. 146
Marketing, pg. 148
Nursing, pg. 163
Political Science, pg. 115
Sociology, pg. 124

Hanley College also offers three major programs unique to itself: B.S. in Nursing for Registered Nurses, Communication/English, and Liberal Studies. Descriptions for these programs follow.

B.S. FOR R.N. STUDENTS

The registered nurse student is recognized as an adult learner who comes with a diversity of life experiences, education and clinical expertise, as well as motivation and ability to learn independently and collaboratively. To facilitate advanced placement, opportunity is provided for students to validate, by examination, previously acquired educational and clinical competencies.

The program, accredited by the National League for Nursing, is open to all registered nurses who meet admission requirements. The registered nurse student may enroll on either a full-time or part-time basis.

1. Transfer courses, especially courses in the sciences, must be equivalent to courses in the nursing program at the University of Scranton (science courses taken at a non-degree program are accepted if they were taken at an affiliated college and received college credit); a grade of C or better must have been earned. If chemistry courses to be transferred do not have sufficient biochemistry, in the opinion of the faculty, the student may challenge Chem. 111 or enroll in the course.

2. Natural science courses from a period ten years prior to date of matriculation at the University of Scranton are generally not accepted for transfer; however, Biology 110, 111 or 210 and Chemistry 110 and 111 may be challenged. If a grade of "C" or better is not achieved, the student must enroll in the course. Transcripts will be individually approved by the chair of the nursing department.

3. CLEP credit may be applied except for nursing, natural science, clinical or laboratory courses.

To apply for admission to the B.S. for R.N. track, students should submit the following with a completed application form and fee:

1. Official transcripts from high school, nursing school and other colleges attended.
2. Scores from College Board Scholastic Aptitude Test or NLN Preadmission RN Examination.
3. A copy of State Board/N-CLEX results.
4. A copy of current Pennsylvania Registered Nurse License.
5. Two letters of recommendation: one academic, one from employer or clinical supervisor.

GUIDE TO PROGRAM PLANNING FOR REGISTERED NURSE STUDENTS

	Dept. and No.	Descriptive Title of Course	Credits
		FRESHMAN SEQUENCE	
COGNATE	Chem. 110	Introduction to Chemistry I	4
COGNATE	Chem. 111	Introduction to Chemistry II	4
COGNATE	Bio. 110	Structure & Function of Human Body I	4
COGNATE	Bio. 111	Structure & Function of Human Body II	4
GE AREA II	Psych 110	Fundamentals of Psychology	3
GE AREA IV	Humanities	Electives	9
GE AREA V	Phi. 120	Introduction to Philosophy	3
GE AREA V	T/RS 121	Theology I	3
			34
		SOPHOMORE SEQUENCE	
MAJOR	Nursing 241	Perspectives in Professional Nursing	3
MAJOR	Nursing 242	Nursing Related to Assessment of Health Patterns	6
COGNATE	Bio. 210	Intro to Medical Microbiology	3
COGNATE	Math 204	Special Topics of Statistics	3
GE AREA II	Psych 221	Childhood Adolescence *	3
GE AREA II	Psych 224	Personality *	3
GE AREA III	English 110	Composition	3
GE AREA III	Comm. 100	Public Speaking	3
GE AREA IV	Humanities	Elective	3
GE AREA V	Phil. 210	Ethics	3
GE AREA V	Phil. 212	Medical Ethics *	3
			36
		JUNIOR SEQUENCE	
GE AREA IV	Humanities	Electives	6
GE AREA V	T/RS 122	Theology II	3
MAJOR	Nursing 281	Application of Clinical Pathophysiology to Health Patterns	3
			12
		SENIOR SEQUENCE	
MAJOR	Nursing 480	Nursing IV	6
MAJOR	Nursing 493	Research in Nursing	3
MAJOR	Nursing 481	Nursing V	9
GE AREA V	T/RS - Phil.	Elective	3
GE FREE	Electives	Electives	6
			27

A total of 24 credits may be validated by taking the NLN Mobility Exams. See validation policy for additional information.

* Department recommendation.

Curricular and attendance policies:

1. In order to continue in the nursing program, the R.N. student must enroll in a minimum of one course or validation exam in each regular semester.

2. The R.N. student is expected to complete the degree requirements within seven years from the date of admission. Fifty-four credits in Nursing are required for the degree, twenty-four of which may be earned through validation examinations.

3. Students must have completed at least 100 credits prior to enrollment in Nurs. 480 or 493.

4. One year prior to planned entrance into the senior level courses, the R.N. student must inform the Coordinator of the R.N. Student Track, in writing, of her/his intent to enter the senior sequence.

5. Nursing students must achieve a grade of C or better in the major and cognate courses. All nursing courses must be taken at the University of Scranton.

COMMUNICATION/ENGLISH

The major program in Communication/English aims to help the student to acquire the analytic and critical facilities that close study of literature can develop, as well as an understanding of the processes and institutions whereby communication takes place in our society. The graduate of this program should be prepared to take advantage of a variety of career opportunities: journalism, public relations, government service, managerial training, broadcasting.

To complete the program, a student takes 36 credit hours of course work in English and Communication, 18 credits in cognate fields, and 60 credits in the general education and elective areas. This degree program is open only to Hanley College students, although students registered in other colleges of the University are welcome to enroll in individual courses offered in the Communication/English program.

LIBERAL STUDIES

The Liberal Studies major is a highly individualized program offered exclusively through Dexter Hanley College. Applicants who have attended other accredited colleges may transfer up to 60 credits for applicable courses in which a grade of "C" or better was earned. Students who qualify for this interdisciplinary degree program are eligible to earn as many as 30 semester hours by passing the CLEP (College Level Examination Program) tests with acceptable scores and/or to apply for Assessment of Prior Learning acquired through professional experience or formal course work in noncollegiate settings. Degree requirements for the Liberal Studies major are outlined in the chart which follows:

DEGREE REQUIREMENTS FOR LIBERAL STUDIES

General Education

		Credits
Area I	**Natural Sciences/Mathematics** (Biology, Chemistry, Physics, Math)	9
Area II	**Social/Behavioral Sciences** (Economics, Political Science, Psychology, Sociology, Education)	9
Area III	**Communication** (Communication, Computer Science, English 110, Foreign Language, Applied Fine Arts)	9
Area IV	**Humanities** (English & Foreign Literature, Fine Arts, History)	18
Area V	**Philosophy/Theology** (Phil. 120 & 210—T/RS 121 & 122 2 other Philosophy or T/RS electives)	18
Free Area	Elective	3
Areas of Concentration*:	(A)..... (B)..... (C)..... (D).....	57
		TOTAL: 123 credits

* N.B.: In developing the areas of concentration, the student will select 3 or 4 fields of study, with at least 12 credits and no more than 21 credits in any single field. Careful attention must be given to selecting the areas of study as well as to determining the number of credits to be taken in each area selected. Thus, the student may be asked to seek advice from faculty members in several departments before drawing up a final degree plan.

ASSOCIATE DEGREES

ASSOCIATE IN ARTS
Background

The Associate in Arts may be considered the natural companion to the Bachelor of Arts degree, serving many of the same kinds of students served by the latter. The Associate in Arts is often classified as the Liberal Arts "transfer degree" in that it provides the student with the broad exposure to the arts and sciences necessary for later specialization in four-year degree programs in Liberal Arts and in business and professional fields. Some students may wish to use the A.A. degree as the foundation of one of the two University of Scranton baccalaureates (the Bachelor of Arts or the Bachelor of Science); whereas others will find that their educational and career goals are best served by using the degree as the basis for entry into programs offered by other institutions.

Degree Requirements for Associate in Arts

The Associate in Arts is the equivalent of a two-year Liberal Arts degree. Each candidate for the degree must complete sixty semester hours of credit. Of these, fifty-four credits must be earned in the Liberal Arts, according to a prescribed plan covering the humanities, social/behavioral sciences, philosophy, theology/religious studies, and natural sciences/mathematics. The remaining six semester hours are allotted to free electives in either liberal or non-liberal arts subjects. Applicants who have attended other accredited colleges may transfer up to 30 credits for applicable courses in which a grade of "C" or better was earned. An outline of the degree credit requirements follows:

Credits Required by Area of Study

Area I	Natural Sciences/Mathematics	9
Area II	Social/Behavioral Sciences	9
Area III	Communication: Comm. 100—Public Speaking	3
	English 110— Composition	3
	Elective in Speech, Writing, Foreign Language, Computer Science, Applied Fine Arts	3
Area IV	Humanities (Fine Arts; History; Literature)	18
Area V	Philosophy/Theology	
	Phil. 120 —Introduction to Philosophy	3
	T/RS 121—Theology I	3
	Phil 210-Ethics or T/RS 122-Theology II	3
		54
Free Area	Electives	6
	TOTAL:	60

A comparison of the A.A. degree with the Bachelor of Arts degree reveals that the Liberal Arts distribution requirements are essentially similar. By careful planning, the student can utilize part of the distribution plus the free electives to lay the foundation for a major in a specific discipline in the humanities, social/behavioral sciences or natural sciences/mathematics. Finally, the A.A. will serve to satisfy many of the Liberal Arts distribution requirements and free electives for one of the degrees in business, accounting, management or marketing.

ASSOCIATE DEGREES IN CAREER-RELATED FIELDS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors. At the present time the University offers associate degrees in the following areas:

Business
Computer Information Systems
Criminal Justice
Electronics Engineering
Health Administration
Human Services
Political Science
Public Administration
Social Relations/Gerontology

Degree Requirements

To earn the Associate of Science degree **in Criminal Justice, Political Science, Public Administration,** or **Social Relations/Gerontology,** the student must successfully complete sixty semester hours of credit. Of these, forty-two credits must be earned in the Liberal Arts, according to a prescribed plan covering the humanities, philosophy, theology/religious studies, social/behavioral sciences, and natural sciences/mathematics. Twelve additional credits must be earned in the major field. The remaining six semester hours are allotted to free electives in either the area of specialization or any other field. An outline of the degree credit requirement is provided below.

Credits Required by Area of Study

Area I	Natural Science	(Biology; Chemistry; Mathematics; Physics)	6
Area II	Social/Behavior	(Business; Economics; Human Services; Criminal Justice; Pol./Sci.; Psychology; Sociology)	9
Area III	Communication	(ENGL 110 and COMM 100, plus one course in Communication; Computer Science; Modern Language)	9
Area IV	Humanities	(Fine Arts; History; Literature)	9
Area V	Philosophy & T/RS	(PHIL 120 & T/RS 121 are required)	9
Free Area	Electives		6
Major	Electives		12
			TOTAL: 60 credits

BUSINESS

General Education

	Dept. and No.	Description of Course	Credits
Area I	Math 106, 107	Quantitative Methods I, II	6
Area II	Eco. 151, 152	Principles of Economics, I, II	6
	Social/Behavior	Elective	3
Area III	Engl. 110-	Composition-	3
	Comm. 100	Public Speaking	3
	CMPS 104	Computing, Business & Social Sciences	3
Area IV	Humanities	Electives	9
Area V	Phil. 120	Introduction to Philosophy	3
	T/RS 121	Theology I	3
	Phil. 210 or	Ethics	
	T/RS 122	Theology II	3

Major/Cognates

Mgt. 161	Introduction to Business	3
Acc. 253, 254	Financial/Managerial Accounting	6
QMS 251, 252	Statistics for Business, I, II	6
Mgt. 251	Legal Environment of Business	3
		TOTAL: 60 credits

COMPUTER INFORMATION SYSTEMS

General Education

	Dept. and No.	Description of Course	Credits
Area I	Math 142, 114	Discrete Structures, Analysis I*	8
Area II	Eco. 151-152 or	Principles of Economics I, II	
	Pol. Sci. 110 -111	Introduction to Public Administration, Public Policy	6
Area III	Engl. 110	Composition	3
	Engl. 111	Technical & Business Writing	3
	Comm. 100	Public Speaking	3
Area IV	Humanities	Electives	9
Area V	Phil. 120	Introduction to Philosophy	3
	T/RS 121	Theology I	3
	Phil. 210 or	Ethics	
	T/RS 122	Theology II	3
Free Area	Elective	Elective*	3/4
			44/45

Major/Cognates

CMPS 134, 144	Computer Science I, II	7
CMPS 240	Data Structures	3
CMPS 250	Machine Organization & Assembly Programming	3
CMPS 330	Information Systems Analysis	3
CMPS 340	File Processing	4
		20

* Math 103-if needed preliminary to taking Math 114 (4 cr.)

TOTAL: 64/65 credits

ELECTRONICS ENGINEERING

General Education

	Dept. and No.	Description of Course	Credits
Area I	Math 103, 114	Pre-Calculus, Analysis I	8
Area II	Soc./Behav. Sci.	Elective	3
Area III	Engl. 110	Composition	3
	Comm. 100	Public Speaking	3
Area IV	Humanities	Electives	6
Area V	Phil. 120	Introduction to Philosophy	3
	T/RS 121	Theology I	3
			29

Major/Cognates

Phys. 140, 141	Elements of Physics (& labs)	8
Phys. 270	Elements of Modern Physics	4
Math 221, 222	Analysis II, III	8
CMPS 106 or	FORTRAN 77 or	
CMPS 134	Computer Science I	3
Engr. 252	Solid State Materials Science	3
Engr. 253	Introduction to Computer Aided Design	1
EE. 241	Circuit Analysis (& lab)	5
EE. 240	Digital Circuits	3
EE. 342	Electronic Circuits I	3
EE. 345	Digital System Design	5
		44

TOTAL: 73 credits

HEALTH ADMINISTRATION

General Education

	Dept. and No.	Description of Course	Credits
Area I	Acc. 253*-254*	Financial/Managerial Accounting	6
Area III	Engl. 110	Composition	3
	Comm. 100	Public Speaking	3
	CMPS. 104	Computing for Business & Social Sciences	3
Area IV	Humanities	Electives	9
Area V	T/RS 121	Theology I	3
	Phil. 120	Introduction to Philosophy	3
	T/RS 122 or	Theology II	3
	Phil. 210	Ethics	
Free Area	Free	Electives	6

Major/Cognates

HADM 111	Introduction to Health Administration	3
HADM 112	Health Systems	3
HADM 312	Health Economics & Finance	3
HADM 313	Health Administration	3
HADM Elective	Elective	3
Cognate	Electives	6

* Recommended courses

TOTAL: 60 credits

HUMAN SERVICES

General Education

	Dept. and No.	Description of Course	Credits
Area I	Electives	Electives	6
Area III	Engl. 110	Composition	3
	Comm. 100	Public Speaking	3
	CMPS 104*	Computing for Business & Social Sciences	3
Area IV	Humanities	Electives	9
Area V	T/RS 121	Theology I	3
	Phil. 120	Introduction to Philosophy	3
	T/RS 122 or	Theology II	3
	Phil 210	Ethics	
Free Area	Free	Electives	6

Major/Cognate

HS 111	Introduction to Human Adjustment	3
HS 112	Human Service Systems	3
HS 311	Case Management & Interviewing	3
HS 312	Counseling Theories	3
HS Elective	Elective	3
Cognate	Electives	6

* Recommended Course

TOTAL: 60 credits

CERTIFICATES FOR ACADEMIC CREDIT

A Certificate Program is an educational opportunity to gain professional knowledge or training in a specific field before or after pursuing a degree.

The courses a certificate student takes are part of the regular curriculum of the University. Most certificates are comprised of six to eight academic credit courses which are recorded permanently on a transcript in the Registrar's Office. Some certificates also include guided learning experiences.

Students enroll in the undergraduate certificate programs with a variety of educational backgrounds ranging from having completed no college work to having earned a degree. A student enrolled in a degree program in Dexter Hanley College may apply for and earn a certificate concurrently.

In order to earn a certificate, a student must maintain at least a C average in the certificate courses and must successfully complete any other requirements as stipulated for a specific certificate program. Generally, no more than six credits may be transferred into a certificate program.

Application to a certificate program is made through the Admissions Coordinator in Dexter Hanley College. After a student's application is approved, the student is notified of his/her acceptance into the program and may then register. A student is responsible for conferring with an advisor before registering and as needed in the course of earning the certificate.

Each department reserves the right to modify its certificate program requirements. Admission to a certificate program is subject to department approval. In certain certificate programs, the required courses may be waived on the basis of prior experience.

Certificates available include Advertising/Public Relations, Alcohol/Drug Abuse Counseling, Computer Information Systems, Drama/Theatre, Gerontology, Health Administration, Human Services, and Specialized Writing. The Business/Management certificates are Level I: Business; Level II: Accounting, Personnel Management, and Pre-MBA.

CERTIFICATE IN ADVERTISING/PUBLIC RELATIONS
(18 credits)

A program designed for adults who are seeking entry-level or advancement opportunities in advertising, promotion, and public relations.

BASIC

Required Courses:

Comm. 224: Newswriting
Comm. 225: Advertising
Comm. 312: Organizational Communication

Elective Courses (select three):

Comm. 120: Mass Communication
Comm. 210: Logical and Rhetorical Analysis
Comm. 226: Writing for Public Relations
Comm. 227: Public Relations
Comm. 328: News Editing
Comm. 331: Mass Media Management
Comm. 380: Advertising Practicum

ADVANCED

Required Courses:

Comm. 310: Mass Communication Law
Comm. 410: Communication Theory and Research

Elective Courses (select four):

Comm. 210: Logical and Rhetorical Analysis
Comm. 220: Responsibility in Communication
Comm. 226: Writing for Public Relations
Comm. 227: Public Relations
Comm. 311: Political Communication
Comm. 328: News Editing
Comm. 331: Mass Media Management
Comm. 380: Advertising Practicum
Comm. 482: Directed Independent Study

CERTIFICATE IN ALCOHOL/DRUG ABUSE COUNSELING
(24 credits)

A program designed for individuals interested in the field of substance abuse intervention. This program also has been approved by the Pennsylvania Alcohol and Drug Abuse Counselors Certification Board. State Certification also requires three years' work experience in a treatment facility and a certifying oral examination.

Required Courses:

HS 311: Case Management and Interviewing
HS 312: Counseling Theories
HS 421: Addictions
HS 422: Substance Abuse Education
HS 423: Health and Legal Aspects of Substance Abuse

Elective Courses (Select three courses):

HS 112: Human Service Systems
HS 223: Psychiatric Rehabilitation
HS 231: Health & Behavior
HS 232: Crisis Intervention
HS 234: Marital & Family Counseling
HS 411: Group Dynamics

CERTIFICATE IN COMPUTER INFORMATION SYSTEMS
(20 credits)

A program for adults who seek to develop a familiarity with computers and their application to the business environment.

1. Individuals presently in business who need to develop a greater familiarity of computer applications.
2. Individuals who are seeking to develop entry-level skills necessary for business computing.

Required Courses*:

CMPS. 134: Computer Science I
CMPS. 144: Computer Science II
CMPS. 340: File Processing with COBOL
CMPS. 330: Information Systems Analysis

Electives: (Select 2 courses):

CMPS. 240: Data Structures
CMPS. 331: Systems Analysis and Design
CMPS. 341: Database Systems

* Some pre-requisite courses may be required, as determined by an academic advisor; Math 142 is a prerequisite for CMPS 144.

CERTIFICATE IN DRAMA/THEATRE
(21 credits)

A program for adults who wish to design their knowledge of and skills in the areas of drama and theatre.

1. Individuals who wish to develop acting skills for personal satisfaction.
2. Individuals who wish to develop more professional or semi-professional skills in drama and/or theatre.

Required Courses:

Engl. 104: Introduction to Drama
Engl. 115: Introduction to Theatre
Engl. 116: Introduction to Acting

Electives (Select 4 courses):

Engl. 134: Shakespeare's Tragedies
Engl. 135: Shakespeare's Comedies
Engl. 215: Intermediate Acting
Engl. 216: Advanced Acting
Engl. 217 - 218: History of the Theatre I, II
Engl. 222: Modern Drama
Engl. 223: Dramatic Comedy
Engl. 280: Drama Practicum
Engl. 316: Theories of Theatre

CERTIFICATE IN GERONTOLOGY
(18 credits)

A program designed to meet the needs of persons either currently employed in the field of aging by providing course work designed to increase and refine knowledge and practitioner skills (ADVANCED CERTIFICATE PROGRAM); or a program for persons with some previous college experience who are considering a career in the field of gerontology.

BASIC

Required Courses:
Gero. 110: Intro. to Gerontology
Gero. 218: Health & Aging
Gero. 230: Social Policy & Aging
Soc. 110: Principles of Sociology

Electives (Select two courses):
Gero. 112: Social Problems of Aging
Gero. 212: Aging & the Life Cycle
Gero. 214: Aging & Human Behavior
Gero. 216: Aging & The Community
Gero. 220: Crime & Aging
Gero. 232: Aging & Death

ADVANCED

Required Courses:
Gero. 110: Intro. to Gerontology
Gero. 218: Health & Aging

Electives (Select four courses):
Gero. 112: Social Problems of Aging
Gero. 210: Aging in Anthropological Perspectives
Gero. 212: Aging & The Life Cycle
Gero. 214: Aging & Human Behavior
Gero. 216: Aging & The Community
Gero. 220: Crime & Aging
Gero. 232: Aging & Death
Gero. 382: Independent Study
Gero. 480, 481: Practicum in Gerontology

NOTE: Some daytime courses may be required.

CERTIFICATE IN HEALTH ADMINISTRATION
(18 credits)

A program for adults who seek to develop administrative skills in the field of health administration.

Required Courses:
H/HS 111 : Introduction to Health Administration
H/HS 112 : Health Systems
HADM 313 : Health Administration
HADM 441 : Issues in Health Administration
HADM : Elective
HADM : Elective

CERTIFICATE IN HUMAN SERVICES
(18 credits)

A program for individuals who seek to develop skills in and familiarity with human services systems and interventions.

Required courses:

HS 111: Introduction to Human Adjustment
HS 112: Human Services Systems
HS 311: Case Management and Interviewing
HS 312: Counseling Theories
HS: Elective
HS: Elective

CERTIFICATE IN SPECIALIZED WRITING
(18 credits)

A program for adults who wish to develop their writing skills in specific areas.

1. Individuals who wish to develop skills in specific areas of writing.
2. Individuals who are seeking to refine existing writing skills.

Required Courses:

Engl. 110: Composition
Engl. 210: Advanced Composition

Electives (Select 4 courses):

Engl. 111: Technical & Business Writing
Engl. 127: Film Criticism
Engl. 130: Children's Literature
Engl. 175: Introduction to Publishing
Engl. 211: Writing for the Law
Engl. 213: Fiction Writing I
Engl. 214: Poetry Writing I
Engl. 311: Magazine Editing
Engl. 313: Fiction Writing II
Engl. 314: Poetry Writing II
Engl. 413: Script Writing
Comm. 323: Television Journalism

CERTIFICATE PROGRAMS IN BUSINESS/MANAGEMENT

LEVEL I

The Level I certificate programs in Business will comprise 18 credits, with no more than 6 credits allowed by way of transfer from another college. The Level I program is open to any qualified students (i.e., those who meet DHC entrance requirements).

BUSINESS
(18 credits)

Acc. 253, 254: Financial Accounting — Managerial Accounting
Eco. 151, 152: Principles of Economics I, II
Mgt. 251: Legal Environment of Business
CMPS 104: Computing for Business & Social Sciences

LEVEL II

Level II certificate programs will comprise 18 credits, with no more than 3 credits allowed by way of transfer from another approved college. Level II programs are open only to students who have achieved junior status, and have completed the appropriate Level I program, or to post-baccalaureate enrichment students. In the latter case, students may be required to take pre-requisite courses for any required courses in the certificate program.

The Level II certificate in Accounting, plus an earned baccalaureate degree, prepares the student to sit for the Pennsylvania C.P.A. examination. In New York state and New Jersey, six additional credits in finance are required.

ACCOUNTING
(24 credits)

Acc. 251, 252: Financial Accounting I, II
Acc. 361, 362: Intermediate Accounting I, II
Acc. 363, 364: Federal Taxes—Auditing Theory
Acc. 461, 470: Cost Accounting—Law for Accountants

PERSONNEL MANAGEMENT
(18 credits)

Mgt. 351: Organization and Management
Mgt. 352: Organizational Behavior
Mgt. 361: Personnel Management
Mgt. 362: Labor Relations
Mgt. 460: Organization Theory
Mgt. 471: Group Dynamics

PRE-MBA
(24 credits)

Acc. 210:	Survey of Managerial & Financial Accounting (or Acc. 253 & 254)
Econ. 210:	Essentials of Economics (or Econ 151 & 152)
Fin. 351:	Introduction to Finance
Mkt. 351:	Managerial Marketing
Mgt. 251:	Legal Environment of Business
Mgt. 351:	Organization and Management
QMS 210:	Quantitative Methods I (or Math 106 & 107)
QMS 211:	Quantitative Methods II (or QMS 251 & 351)

SEQUENCE OF STUDY/PREREQUISITES

Students enrolled in degree programs in Hanley College are strongly advised to follow as closely as possible the sequence of studies listed for their chosen major. That students may be assured of having the adequate background for the successful completion of certain courses, prerequisite courses are sometimes listed. The course description in the earlier pages of this Bulletin contain the necessary information on prerequisites. In some cases practical experience may compensate for the lack of prerequisite courses, but such requests for exceptions must be approved by the departmental advisor at the time of registration. Students should also check with their departments for specific scheduling information on course sequences in their major. Since not all required courses are offered each semester, careful planning should be done in advance to assure smooth progress through the degree program.

SPECIAL SUMMER PROGRAM IN HUMANITIES

The goal of the Special Summer Program in Humanities is to provide university-level learning opportunities for students who are just beginning their collegiate careers. It entails providing an overview of the scholarly resources available at this university and carefully designing the kind of serious study projects that cultivate students' critical thinking and reading skills, study habits, and oral and written expression, while adding to their general knowledge in a wide range of humanistic disciplines. The knowledge, understanding, and skills that students can gain by confronting the liberal arts tradition in the early stages of their university studies will provide them with a solid base on which to build in the future.

Hum. 1 **Reading and Research:** This course is designed to increase the student's proficiency in reading, research, and study skills. Readings will be selected from various fields in the humanities, and emphasis will be on preparing students for the kinds of reading they will be required to do in their future University course work. (3 credits)

Hum. 2-3 **Modes of Expression:** This course is designed to assist the student to refine both writing and speaking abilities. The laboratory approach allows individual attention by instructor and lab assistants in the exploration of various modes of expression in a wide range of areas. Successful completion of Hum. 2-3 fulfills the written and oral skills requirement of the University, i.e., replaces Engl. 110 and Comm. 100. (6 credits)

These courses will be open to Hanley College students only (i.e., not to students enrolled in other undergraduate schools of the University of Scranton). Credits for Hum. I may be applied to either GE Area III or GE Area IV, with the approval of the Hanley College Dean.

TELECOURSES

Telecourses meet the needs of those students who have difficulty attending classes on campus. Courses are normally shown one hour per week on WVIA. Meetings with instructors are reduced from the typical three hours per week. These courses are geared to highly motivated students capable of doing independent work. (Courses offered vary each semester.)

CREDIT FOR ACADEMICALLY RELEVANT LEARNING

Hanley College provides opportunities for students to earn credit for university level learning that takes place outside the classroom setting. A maximum of 30 credits will be awarded for extra institutional learning. This includes CLEP, PEP, credit by exam, portfolio credit, DANTES, military credit, and PONSI credit. (Advanced placement credit is considered separately.)

College-Level Examination Program (CLEP)

The College-Level Examination Program has been established to enable students of all ages to earn college credit by examination. Through the CLEP tests, applicants may gain credit in many academic subjects applicable to their degree programs. Individuals who wish further information about these examinations should consult the Dean of Hanley College or write directly to the Program Director, College-Level Examination Program, College Entrance Examination Board, Box 1824, Princeton, N.J. 08540.

Assessment of Prior Learning

Many students have acquired substantial amounts of "experiential learning" outside a formal college or university classroom in jobs, military service, or nonaccredited institutions. One who wishes to have this learning assessed for possible credit will enroll in the one-semester course, Educ.101 (see pg. 152) to document relevant experiences and the knowledge gained from them for departmental review. Faculty evaluators from the appropriate department(s) will evaluate the portfolio and recommend a credit award for the student's learning. For further information about this program, contact a Hanley College advisor (941-7580).

ACADEMIC REGULATIONS

Hanley College students should consult pages 23 - 26 of this Bulletin for academic regulations common to all four undergraduate colleges of the University. They should be aware of the following policies which relate specifically to those enrolled in DHC:

Registration Limitations

A student registered in Dexter Hanley College may take courses in the other colleges of the University on a space available basis, provided he/she meets the conditions for registration as set forth by the Deans and announced prior to each registration period.

Dean's List

Since many students in Hanley College are enrolled on a part-time basis, the Dean's List criteria for this school differ somewhat from those described on page 25. Students in DHC may earn Dean's List distinction provided they carry at least three courses (9 credits) during the semester and earn at least a 3.3 QPI with no D's or F's. The Dean's List is published at the end of the fall and spring terms each year.

CAMPUS LIFE

Hanley students should consult the Student Handbook for information about such practical matters as I.D. cards, parking permits, and opportunities for commuter participation in various aspects of University life. DHC participation in campus government is provided through the Hanley College Student Council and through Hanley College representation on the University Senate.

TUITION AND FEES 1990-91

Hanley College Tuition: (full-time)	$258	per credit
(part-time)	210	per credit
(all Intersession '91 courses)	258	per credit
University Fee for Hanley Students: (full-time)	225	per semester
(part-time)	30	per semester
Recreational Complex Use Fee (optional for part-time students):	50	per semester
Application Fee for Hanley Students:	10	
Orientation Fee for Hanley Students:	30	
Prior Learning Portfolio Review Fee:	30	per credit

Other course and service fees common to all undergraduates are found in the next section of this Bulletin, pg. 201.

PARENTS' PROGRAM

Whenever at least one dependent child from a family is in attendance at the University as a full-time undergraduate student, a special family tuition reduction policy will apply for a parent enrolled in Dexter Hanley College. The amount of Tuition Credit that will be awarded each semester will be calculated after other financial aid has been applied by the Treasurer's Office personnel. Forms and additional information may be obtained from the Treasurer's Office or from Hanley College.

TUITION POLICY FOR SENIOR CITIZENS

Senior citizens 60 years of age or over will be allowed to register for undergraduate courses at the University of Scranton through Hanley College, on a "space available" basis with no tuition charges. A registration fee for credit courses, lab fees and materials fees where applicable, and textbook costs will be charged. If a course is taken for credit, the senior citizen must meet all qualifications and prerequisites for the course.

Space availability will be determined as soon as possible in order that the senior citizen will know of his or her acceptance in a class in time to make necessary arrangements for attendance. A minimum of 12 "regular" students must be enrolled for a course before a senior citizen will be allowed to register with no tuition charges. (Otherwise the course is subject to cancellation.)

FINANCIAL AID FOR HANLEY STUDENTS

At the present time several forms of financial aid are available for students enrolled in Dexter Hanley College. Eligibility for all grants, loans, and scholarships requires the student to file a formal University of Scranton Financial Aid Application, which includes all necessary financial and tax information. Filing deadline is generally May 1. Contact Financial Aid Office for details.

Pennsylvania Higher Education Assistance Agency

Hanley College students are eligible for PHEAA grants if they are taking twelve credits a semester; they are eligible for PHEAA loans if they are taking at least six credits.

Pell Grants

Hanley students taking at least six credits a semester are eligible to apply for federal grants administered under the PELL GRANT program.

Dexter Hanley Scholarship

Limited partial tuition scholarships are available for Hanley students, including new students, who demonstrate a high degree of need as well as academic competence.

Hanley College Student Council Scholarship

This limited tuition scholarship is available only to Hanley College students with demonstrated financial need, who have completed 45 credits and are not eligible for any other financial assistance.

Robert L. McDevitt Scholarship

Income from a fund established in 1977 provides scholarship assistance to Hanley College students. The scholarship was established by Robert L. McDevitt, a Georgetown University classmate and longtime friend of Father Dexter Hanley, S.J., who served as President of the University from 1970 to 1975.

Newcombe Scholarship for Mature Women

The Charlotte W. Newcombe Foundation provides scholarship funds for mature women students completing their education in preparation for a second career. These scholarships, available to women 25 years of age or older, who have completed at least 60 credits, are available in any of the undergraduate schools of the University of Scranton, but obviously several each year are awarded to women enrolled in Dexter Hanley College.

Application forms for Dexter Hanley, Hanley College Student Council, McDevitt, and Newcombe scholarships are available in the Dexter Hanley College office in April. The University's Financial Aid office can also provide information about loan programs; additional information may also be found on p. 203.

HANLEY CONTINUING EDUCATION

Non-Credit Courses are designed to meet the needs of the mature student. These include refresher programs for those planning to begin studies for an associate or baccalaureate degree, courses for the professional who wishes to upgrade skills or qualify for a license, and courses of general interest for those seeking cultural enrichment or personal development.

Conferences, Institutes, and Workshops, which are public service programs arranged for special groups or professionals in a specific area. Such programs occur both on and off campus; many are co-sponsored by other organizations. The Continuing Education Office is the unit on campus designed to award Continuing Education Units (CEU's), a nationally recognized means of documenting certain kinds of adult educational experiences.

Computer Assisted Design, The Department of Physics/Engineering and the Office of Continuing Education sponsor a series of Computer Aided Design seminars using AutoCAD Software. These training seminars have been developed to assist area professionals in learning more about this exciting new concept in design.

The three-day seminars are offered on a regular monthly schedule and use the up-to-date facilities of the University's new computer lab.

Elderhostel

Since 1981 the University has participated in ELDERHOSTEL, an international program that offers adult learners over the age of 60 the opportunity to share a short-term, residential experience of campus life. Through a network of colleges and universities in the United States, Canada, and abroad, older learners can spend a week on campus — living in dormitories, eating in student cafeterias, and using the school's cultural, academic, and recreational facilities.

Senior Citizen Discounts

Senior citizens may enroll in non-credit continuing education courses at half tuition, provided that there is a sufficient number of regular students enrolled for those courses.

For further information regarding any of the Continuing Education programs at the University, call 941-7582.

SAINT PIUS X SEMINARY

In cooperation with the Diocese of Scranton and its Bishop, The Most Reverend James C. Timlin, D.D., the University offers an academic formation program which leads to a B.A. in Philosophy. Courses are offered, such as, "The Philosophy of Aquinas," "Metaphysics," "Issues in Philosophy and Theology," etc., that especially prepare the seminarian for his future theological studies. In 1976, the University established the Saint Pius X Chair of Theology. Seminary faculty occupy this "teaching" Chair in the department of Theology. These courses provide the seminarian with a basic introduction to the Catholic theological tradition. The Language department, too, offers courses in Latin, biblical Greek, and Hebrew.

Bishop J. Carroll McCormick, D.D., then Ordinary of the Diocese of Scranton, responding to the aims and objectives of the National Conference of Catholic Bishops, on July 13, 1970 entered an agreement with the University of Scranton and the diocesan-owned seminary for student candidates to become full-time students of the University, while maintaining residence at the Seminary. At the Dalton campus, the seminarian's academic life is complemented by programs of personal and spiritual development. Through a series of supervised ministerial experiences, the seminarian is introduced to the life of the diocesan priest.

Since the inception of this cooperative agreement, over 200 graduates of the University have been accepted into graduate schools of theology in the United States and Europe. Of that number, some 100 have been ordained for service to the Archdiocese of Washington, and the Dioceses of Allentown, Camden, Harrisburg, Scranton and Trenton, among others.

College seminarians matriculate as full-time students in both the College of Arts and Sciences and Dexter Hanley College. The latter college of the University allows students who already have undergraduate degrees to pursue a two-year pre-Theology program by providing them the opportunity to take courses in Philosophy, Religious Studies (through the Saint Pius X Chair of Theology), and the Classical and Biblical Languages. This special program offers the student the best of both worlds. The seminarian has ready contact with his peers and professors at the University and is able to take advantage of all the educational and developmental resources available on such a campus. At the same time, he has the atmosphere and resources of the seminary formation program at St. Pius X to nurture and promote his vocation to the diocesan priesthood. During the 1989-90 academic year, St. Pius X Seminary was listed as the eighth largest collaborative program in the country.

Current enrollment includes students representing the Archdiocese of Washington, and the Dioceses of Allentown, Bridgeport, Camden and Scranton.

SPECIFIC COURSE REQUIREMENTS

1. SEMINARIANS MAJORING IN PHILOSOPHY:

In fulfillment of the general requirements of the philosophy department, the following courses are required by St. Pius X Seminary:

Philosophy

Phil. 120	Introduction to Philosophy *
Phil. 210	Ethics *
Phil. 215	Logic *
Phil. 220	History of Ancient Philosophy *
Phil. 221	History of Medieval Philosophy *
Phil. 222	Modern Philosophy *
Phil. 310	Epistemology *
Phil. 311	Metaphysics
Phil. 411	Philosophy of Aquinas *

Seminarians may choose other electives in philosophy to fill out the requirements of the philosophy major.

Theology (courses taught by faculty holding the St. Pius X Chair)

T/RS 121-122	Theology I-II *
T/RS 202/203	Biblical Exegesis
T/RS 204	Pauline Letters (available)
T/RS 205	Gospels and Jesus (available)
T/RS 220	Moral Theology
T/RS 323	Signs and Symbols
T/RS 327	Foundation in Theology *

Communication

Engl. 110	Composition
Comm. 100	Public Speaking

Languages

Latin 111-112	Elementary Latin *
Greek 113-114	Biblical Greek *
Spanish 101-102	Elementary Spanish (recommended)
Latin 211-212	Intermediate Latin (recommended)
HB 101-102	Elementary Hebrew (available)

Suggested sequence of courses to be followed in philosophy major if possible:

Freshman:	first semester—Phil. 120
	second semester—Phil. 210
Sophomore:	first semester—Phil. 220
	second semester—Phil. 221, Phil. 215
Junior:	first semester—Phil. 222, Phil. 310
	second semester—Phil. 311, Phil. elective
Senior:	first semester—Phil. elective
	second semester—Phil. elective

II. SEMINARIANS MAJORING IN OTHER AREAS:

Philosophy Requirement:

Phil. 120, Phil. 210, Phil. 221, Phil. 222, Phil. 311, Phil 215

Theology Requirement:

T/RS 121-122, T/RS 202 or 203 or T/RS 204 or T/RS 205; T/RS 227.

Communication Requirement:

Engl. 110, Comm. 100

Classical Language Requirement:

Latin 111, 112, 211, 212.

* Pre-theology program (2 years; 54 credits)

Collegiate Hall in Redington Hall

Outside the Classroom

Much of a student's education takes place outside the classroom. At the University of Scranton, some of the formal academic learning process takes place off campus in the various internship programs; on campus there are available traditional extracurricular activities. In many instances, these activities merit and receive academic credit. They also provide further means by which potential becomes achievement.

EXTRACURRICULAR ACTIVITIES
THEATRE

The tradition of the theatre and dramatics in Jesuit colleges goes back four hundred years. As evidenced by the award of the Pulitzer Prize in Drama to Jason Miller, a 1961 graduate of the University, at Scranton this tradition thrives. Students write and stage their own dramatic productions, often for academic credit in English and Communication, or in place of the traditional course term paper.

Beyond these individual efforts, the University Players, a co-curricular activity of the Department of English, each year present five major productions and an annual Workshop of student written/directed short plays. Last year's season—produced by well over 100 different student participants—included *Talk Radio, The Normal Heart, Marat/Sade, On The Verge, and Laundry & Bourbon/Lone Star.* Previous seasons have ranged from *Equus* to *Opedipus Rex,* from *Death of a Salesman* to *The Fantasticks.*

During the summer of 1984, the Oscar-winning British actress, Glenda Jackson, was a resident visiting professor. Her acting seminar used a Shakespearean play and a modern American drama as the primary teaching vehicle. Half of her students were from the University of Scranton, the other half from universities across the country. A similar venture occurred during Intersession (January term) 1988, when noted actor Richard Harris visited the University, and produced, with a largely University cast, his Julius Caesar: A Work in Progress.

Participation in the Players is open to all students, regardless of major. Interested students should contact our resident Director of Theatre, Dr. J. W. Roberts, who worked fourteen years as an actor and director of off- and off-off Broadway productions before joining our faculty in 1985.

DEBATE

The tradition of debate in Jesuit colleges and high schools is also strong at the University of Scranton. The Noel Chabanel Council of Debate gives interested students an opportunity to compete in debate and speech events on the intercollegiate level. University of Scranton debaters travel thousands of miles each year nationwide; the 1988 team took first honors in the finals of the Pennsylvania College Energy Debates.

PUBLICATIONS

The University offers a wide choice of journalism opportunities.

The *Aquinas* is the weekly All-American campus newspaper and positions are available to members of all classes.

Esprit is the award-winning campus literary journal.

History students have the opportunity to have their articles published in *Restrospect,* journal of the Royals Historical Society.

The yearbook, *Windhover,* is annually produced by the students.

THE UNIVERSITY BANDS

The Bands include a Concert Band, a Jazz Band, and a Pep Band which plays at sports events. The Bands draw their membership from the more than 200 band musicians who attend the University of Scranton.

STUDENT CLUBS

Biology Club
Business Club
Political Science Club
Ski Club
Pre-Law Society
Social Science Club
Physical Therapy Club
Computer Science Club
Royals Historical Society
Students for Life
Psychology Club
Schrodinger Chemical Society
International Students Association
College Democrats
College Republicans
ROTC Rangers

Communications Club
Veterans Club
India Club
Philosophy Forum
Student Education Association
Horticulture Club
Human Resources Association
Bowling Club
Women's Business Honor Society
Nursing Association
University Singers
Society for Advancement of Management
Schrodinger Chemical Society

A Club of the Year Award is annually presented to that student organization which most clearly exemplifies the University spirit, through educational and social activities for club members and the University community. Winner of the Award for the past three years has been the Physical Therapy club.

ATHLETICS

The University is a Division III member of the National Collegiate Athletic Association (NCAA), the Middle Atlantic States Collegiate Athletic Conference (MAC), and the Eastern College Athletic Conference (ECAC).

MEN'S VARSITY SPORTS

Basketball
Baseball
Tennis
Wrestling
Swimming
Cross Country
Golf
Soccer
Hockey
Lacrosse
Ice Hockey

WOMEN'S VARSITY SPORTS

Field Hockey
Tennis
Basketball
Volleyball
Softball
Cross Country
Soccer
Swimming

A WINNING TRADITION

University athletic teams—The Royals and Lady Royals— enjoy success in nearly all sports. Particularly noteworthy are the men's and women's soccer and basketball teams, who perennially are selected for NCAA post-season competition. The Royals have won the Division III basketball title twice (1976 and 1983) and finished second in 1988; the Lady Royals won the basketball title in 1985, finished third in 1987, and advanced to the NCAA National Quarter finals in 1990. In 1989 the women's soccer team won the MAC Conference title and earned a bearth in the NCAA National Championship Tournament. During the 1980's, eight men's soccer players (Cedric de Silva, 1981; Bill McNeel, 1982; Dan Diceanu, 1984; Hugh O'Neill, 1985; Jeff Arestivo, 1986; Mike Capasso; Magnus Ojert, 1987; and Mike Kane, 1988;) and two men's basketball players (Bill Bessoir, 1984, 1985; and J.P. Andrejko, 1987, 1988) have been named Division III All Americans. Three Lady Royals basketball stars (Deanna Kyle, 1985; Una Espenkotter, 1986; and Shelley Parks, 1987) have gained this honor. Two women's soccer players (Sue Cately, 1987; and Holly Speich, 1988) have been named Division III All Americans. In women's swimming, Mary Bogusch was named First All American Swimmer in 1989.

The 1987-88 year also produced a number of individual sports heroes: Middle Atlantic Conference wrestling champion Dennis Udicious, cross country runner Chris Heaton, swimmer Cathy Hadley, and golfer Will Carey III, all of whom qualified for their respective NCAA National Championship competitions. Carey was named an All American.

ACADEMIC ALL-AMERICANS

The Scranton tradition combines excellence in the classroom and on the playing field. It is personified especially by a large number of students who in recent years have achieved Academic All-American honors: Mickey Banas (1983, 1984), Dan Polachek (1985), and J.P. Andrejko (1987, 1988), men's basketball; Theresa Meade (1984, 1986), cross country; Mike Capasso (1988), men's soccer; Cathy Graham (1985, 1986), Lori Synder (1985, 1986), and Sue Cately (1988), women's soccer; Shelly Buntz (1986, 1987), women's basketball; Greg Moro (1986), baseball; Tracy Graybill (1987), women's tennis; Kelly Guiton (1987), softball; and Will Carey III (1988), golf.

In the past five years, six University graduates mentioned in these pages (Banas, Polachek, Espenkotter, Snyder, Andrejko and Carey) have won prestigious NCAA Post-Graduate Scholarships. No other institution in the country has produced as many recipients.

INTRAMURALS AND PHYSICAL EDUCATION

A year-long intramural program is in operation in the John J. Long Center and the new William J. Byron Recreation Complex, as well as outdoors. For the additional sports available in the Physical Education program, see the description given in the Departmental listing earlier in this bulletin. J.P. Andrejko, All-American, NCAA Post-Graduate Scholarship Winner.

J.P. Andrejko, All-American, NCAA Post-Graduate Scholarship Winner

STUDENT SERVICES

STUDENT AFFAIRS PERSONNEL—The Vice-President, in cooperation with his staff members, directs the various student services, plans and coordinates all activities and services in non-instructional areas: e.g., housing, health, activities, food services, placement. The Dean of Students has a special responsibility for assisting students in the Residence Halls and providing assistance in the area of student conduct.

Fr. Tom Masterson, S.J.
Director of Campus Ministries

CAMPUS MINISTRY—As a Catholic institution, the University of Scranton is dedicated to promoting continued growth in personal maturity and freedom, especially as religious believers and persons dedicated to service of the human family. The specifically spiritual ministry of the entire University community is coordinated by the office of Campus Ministries assisted by the Jesuits, other clergy, University staff members and students themselves. Frequent daily and Sunday liturgies and other special services are conducted in the Madonna della Strada chapel and in dormitories in which the community both expresses and deepens its religious vision. Spiritual counseling is available from the staff or Jesuits, especially the Dormitory Counselors. These make available their training, experience and friendship to promote greater self awareness, maturity, integration and ability to pray, as well as to identify obstacles to these and other goals.

Persons seeking a period of stillness, directed prayer or an experience of Christian community are invited to participate in frequent programs at nearby Chapman Lake. Campus Ministries also sponsors lectures and discussions on vital issues, organizes special events to heighten religious awareness, assists in services to the larger community and is responsible to act as spokesman for justice within the University. Students of non-Catholic faiths are encouraged to help plan an expansion of services to themselves.

COUNSELING CENTER—The Counseling Center serves all students of the University in the personal and interpersonal dimensions of their lives. Located on the second floor of the Gallery building, the Center offers individual and group counseling, and it serves as a liaison with other offices and agencies (both on and off campus) regarding academic, career, and health-related concerns. In addition, the Counseling Center offers outreach programs to enhance the lives of students and to reduce impediments to their achieving their full potential.

The Counseling Center staff includes members licensed by the Commonwealth of Pennsylvania to practice clinical psychology. Interviews are on a voluntary basis and are confidential and without charge to the student. The Center is open Monday through Thursday from 8:30 a.m. to 9:00 p.m. and Friday from 8:30 a.m. to 4:30 p.m. Call (717) 941-7620 to make an appointment.

ACADEMIC ADVISING CENTER—The Academic Advising Center, located in 309 St. Thomas Hall, serves all freshmen in the College of Arts and Sciences and the College of Health, Education, and Human Resources. Staffed by faculty advisors from a wide variety of disciplines in both colleges, the Academic Advising Center offers a comprehensive program of academic advising throughout the freshman year. In addition to individual advising, the Academic Advising Center also offers group advising for students in each major and specialized advising seminars for students in the general areas of Humanities, Natural Science, and Social Science. Faculty advisors are available to students from 8:00-4:30 Monday through Friday; they provide assistance with pre-registration, drop-add, general education course selection, declaration of major (for general area studies students), and assessment of academic performance and goals.

THE SOM ACADEMIC ADVISING CENTER—is located in O'Hara Hall Room 409. Full-time academic advisors are available from 8:30-4:30 PM, Monday through Friday. The Center offers a comprehensive advising seminar for business area students throughout the freshman year. These presentations are open to all SOM students and others interested in SOM programs. Faculty advisors are available to provide assistance to all SOM students with pre-registration, major and general education course selection, and assessment of academic performance and goals. In addition, the advisors assist field-declared business students to declare a major by the end of the freshman year. The Center also advises all SOM students.

THE LEARNING RESOURCES CENTER—The Learning Resources Center is located in 562, 563, and 575 St. Thomas Hall. The LRC was established to help students accomplish their academic goals at the University. The LRC provides services to supplement those offered in the classroom. The Center is staffed by professional staff and peer tutors. LRC staff, utilizing individualized, group, and computer-assisted instruction, provide assistance with oral and written communication skills, study skills, critical thinking skills, academic evaluation and remediation, and study help in specific courses. Assistance is available on a drop-in or referral basis.

READING CLINIC—To assist students in correcting reading weaknesses and improving proper skills, the University's Reading Clinic, under the direction of Prof. John Williams, is made available. A non-credit Developmental Reading course is offered. It concentrates on such areas as comprehension, word attack, speed, critical reading and analysis, research and study techniques. There is a $75 fee.

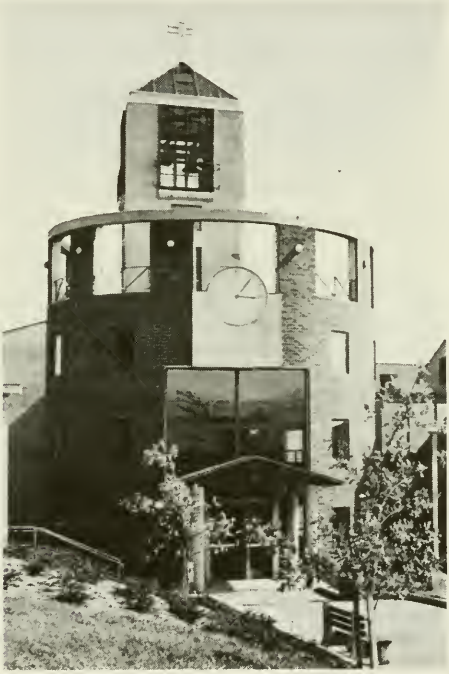
OFFICE OF CAREER SERVICES—The office has designed a program of services which is available to all students and alumni. These services are maintained to advise students on career development, to assist in securing employment and to help plan further academic work following graduation. The Career Services Office conducts the corporate employment interview program for seniors, administers the accounting and federal government internship programs, and helps in locating off-campus part-time employment. During the academic year, the office presents workshops on resume/interview preparation and career planning.

Through the Director, Mr. Paul Perhach, and the departmental advisors, students are provided with graduate and professional school counseling in the areas of admissions, test deadlines, financial aid, and other pertinent information. Letters of recommendations for students and alumni are typed and sent to graduate and professional schools.

CONCERT AND THEATRE SERIES

The University annually presents a variety of cultural events through its Concert and Theatre Series, under the direction of Dr. Njegos Petrovic. Recent presentations have been marked by a high quality of artistic expression by companies of national and international acclaim: "Tosca," presented by the Goldovsky Grand Opera Theatre of New York; Ars Antiqua de Paris; the Pennsylvania Ballet from Philadelphia; the African Heritage Dancers and Drummers of Washington, D.C.; the Ballet Folclorico of Mexico; famed exiled Soviet violinist Albert Markov; Jury's Irish Cabaret of Dublin; the Alberni String Quartet from London; Singers and Dancers of Madrid with the Grandio Spanish Lute Orchestra; the Slovak State Folk Ensemble from Bratislava, Czechoslovakia (see below); and "Romeo and Juliet," by the National Shakespeare Company of New York.

Admission
Expenses
Financial Aid



Redington Hall, Student Residence

The University of Scranton is a selective institution in the Jesuit tradition. It makes available to qualified students an excellent education at a reasonable cost, and it offers significant programs of financial aid.

ADMISSION

The Admissions Committee of the University of Scranton will make the final decision on applications for admission. In reaching this decision, the committee will consider a number of factors:

Demonstrated evidence of a student's academic ability, intellectual curiosity, strength of character and motivation.

Student's high school record, rank in class and extracurricular activities.

Scholastic aptitude test scores and recommendations.

STEPS IN MAKING APPLICATION

Request for an application form and all correspondence dealing with admission to the College of Arts and Sciences, the College of Health, Education, and Human Resources or the School of Management should be directed to:

THE DEAN OF ADMISSIONS
UNIVERSITY OF SCRANTON
SCRANTON, PENNSYLVANIA 18510
Telephone: (717) 941-7540.

A non-refundable fee of $30.00 should accompany the application.

Students should apply during the first semester of their senior year of high school.July 1 is the final date on which applications for Fall term admission will be accepted.

The first two parts of the application form should be completed and the entire form given to the principal or guidance counselor of the high school who will forward high school grades and the completed form to the University.

The Scholastic Aptitude Tests are required of all applicants. These tests should be taken during junior year and/or in November, December or January of senior year. Achievement Tests are not required. Arrange for these tests by contacting your high school guidance counselor or by writing to: The College Entrance Examination Board, Box 592, Princeton, New Jersey 08540.

A non-refundable class reservation fee of $100.00 is required of all accepted applicants. In addition, accepted resident freshmen will make a non-refundable room deposit of $100.00 upon notice from the Dean of Admissions.

The University of Scranton is a Catholic, Jesuit educational institution serving men and women, and is committed to equal opportunity in employment and education for all persons without regard to race, color, creed, ancestry, sex, national origin, handicap, or age.

REQUIRED HIGH SCHOOL PREPARATION

Students desiring to enroll in any of several undergraduate programs offered by the University must have completed a total of 16 or more high school academic units covering grades 9-12. The term "unit" means a high school course taught four or five hours weekly throughout an academic year of 36 weeks duration. Unit requirements and preferred distribution of secondary courses are given in the following table:

HIGH SCHOOL UNITS	COLLEGE PROGRAM CHOICE					
	Arts		Science or Engineering		Business, Education or Social Science	
	Req.	*Pref.*	*Req.*	*Pref.*	*Req.*	*Pref.*
English	4	4	4	4	4	4
History & Social Science	2	3	2	3	2	3
Foreign Language	2	2+	2	2+	2	2+
College Preparatory Mathematics	3	4	4	4	3	4
Science	1	2+	3	3+	1	2+
Other acceptable units	4		1		4	
TOTAL	16+		16+		16+	

Applicants without high school credit in modern languages may be accepted if they present 16 acceptable units. A single year of language in high school will not be counted as a unit to satisfy the requirements for admission.

Mathematics include elementary, intermediate, and advanced algebra, plane and solid geometry; trigonometry, analysis, and any other college preparatory course. Applicants for science and engineering programs must include trigonometry and must have maintained an 85% average in each mathematics course. Applicants for the nursing programs should include chemistry and biology in their high school program.

Science includes biology, chemistry, physics, and other college preparatory courses. Pre-engineering applicants are urged to include physics in their high school preparation.

ACCELERATION AND ADVANCED PLACEMENT

Applicants who have taken college level courses may be given advanced placement or advanced placement with credit for these courses. Students who have been accepted for admission and desire to apply for such placement must take the Advanced Placement Examination offered in May by the College Entrance Examination Board, Princeton, New Jersey 08540. Ordinarily a score of "3" or better in this examination will insure advanced placement with credit.

COLLEGE LEVEL EXAMINATION PROGRAM

Through the CLEP tests, applicants may gain college credit in most academic subjects for work done outside the classroom in jobs, military service, etc., or in non-accredited institutions. For further information contact: College Level Examination Program, Box 1824, Princeton, New Jersey 08540. Students wishing to be considered for CLEP credits should take the CLEP examinations and have the results forwarded to the Dean of Admissions.

ACADEMIC DEVELOPMENT PROGRAM

Applicants who fail to meet all of the admission requirements may be considered for a special freshman year Academic Development Program concentrating on English, logical thinking, reading skills, study habits, as well as work in the student's major field. Satisfactory completion of the ADP program will insure the student normal sophomore standing.

HANDICAPPED STUDENTS

The University of Scranton welcomes applications from individuals with qualified disabilities. The University requires that the handicapped person, *first* undertake a good faith effort to apply for and obtain funding for the auxiliary aid(s) through state vocational rehabilitation agencies and private associations and through volunteer funding sources whenever possible. The University will assist the handicapped individual in applying for such funds. *Second,* if these resources are insufficient for an individual, the University will provide essential assistance within available University resources and funds. *Third,* in the latter instance, the University reserves the right to require the handicapped individual to submit medical proof of handicap, or, at the University's expense, to undergo a medical examination, showing need for the auxiliary aid. The Director of the Counseling Center maintains and provides information, coordination, referral and counseling services for handicapped students. She may be reached in the Gallery building, room 221; phone (717) 941-7620.

TRANSFER STUDENTS

Students who wish to transfer to the University must submit an application and the usual credentials (official high school record, SAT scores and transcript(s) from the college(s) attended). At the discretion of the Admissions Committee, students from another accredited college may be admitted provided: (1) The courses to be transferred are equivalent to courses offered at the University of Scranton; (2) the academic average of the candidate is (2.5) "C plus", (3) certification of honorable dismissal is presented from the previous college. No credit will be given to courses with grades less than "C". Students transferring from other institutions shall be required to make up curricular subjects prescribed in the course which they are to follow at the University of Scranton. A minimum of 63 credits at the University of Scranton is required of transfer students for degree eligibility. Special orientation sessions are held for transfer students. It should be noted that some departments require that at least half of the credits in the student's major be taken here at the University. The respective Dean should be contacted.

STUDENT EXPENSES

ACADEMIC YEAR 1990-91

TUITION per credit (Day School) $258.00

ORDINARY FEES

University Fee per semester, for all CAS, SOM & CHEHR students 235.00
Health Service Fee per semester 30.00
Continuation Fee (in lieu of University Fee for students not in residence) per semester 5.00
Medical Leave Fee per semester 15.00
Reader (Individual Study) Fee, per credit 20.00
Breakage Fee ..... Actual

FOR SENIORS ONLY
Commencement/Yearbook Fee $115.00

FRESHMEN/TRANSFERS
Orientation Fee $100.00
I.D. Photo 10.00

LABORATORY FEES

Science Departments
Biology, Physics labs, per course, per semester 75.00
Psychology, per course, per semester 50.00
Chemistry, per hour, per semester 40.00
Medical Technology Internship Fee, per semester 125.00
English/Communication Departments
Film Screening Fee, per course, per semester 40.00
Radio Lab, TV Lab Fee, per course, per semester 45.00
Foreign Language Department
Language Lab Fee, per course, per semester 25.00
Nursing and Physical Therapy Department
Clinical Lab, per hour, per semester 25.00
Liability Insurance, per internship year (Psychology, Health & Human Services) 65.00
Liability Insurance, per year (Nursing, Physical Therapy) 15.00
Assessment Fee (Nursing—Jr./Sr.) 20/30
Fine Arts Department
Painting Course Lab Fee, per course, per semester 50.00
Music Course (where indicated) Fee, per course, per semester 25.00

SPECIAL SERVICE FEES

Late Registration Fee 20.00
Requested Change of Schedule after First Day of Class 15.00
Change of Major Fee 15.00
Certified Transcript (per copy)
Currently Matriculated Students 2.00
All Other Requests 4.00
Application 30.00
Parking Fee, annual 60.00
Locker Rent, per year 10.00
Reading Clinic, per course 100.00
Reinstatement to Class List 100.00

ROOM AND BOARD FEE SCHEDULE:

Room Rent A (per semester)—Redington and Gavigan Halls $1,237.00
Room Rent B (per semester)—Campus Houses 1,158.00
Room Rent C (per semester)—On-Campus Dormitories 1,119.00
Theme Houses (per semester) 1,158.00
Room Damage Deposit 25.00
Food Plan, 19 meal plan (per semester) 25.00
Food Plan, 14 meal plan (per semester) 855.00
Food Plan, 10 meal plan (per semester) 730.00
Off-Campus Surcharge (per semester) 30.00

ROOM AND BOARD—POLICIES AND GUIDELINES

The University Board Plan offers three meal plans. One plan is the 19 meal plan per week, with three meals per day Monday through Friday, and brunch and dinner on Saturday and Sunday. The second is the 14 meal plan per week, which offers two meals per day Monday through Sunday. The third meal plan offers the student a total of 10 meals per week. These food plans are optional to University students living in off-campus housing. Commuters and/or off-campus residential students may also elect to purchase discounted cash meal tickets.

The room plan at the University offers three (3) programs. Plan A applies to Redington and Gavigan Halls. Plan B applies to campus houses, and Plan C applies to on-campus dormitories. Rates for each plan are published on the previous page. Once enrolled in a room and board plan, a student must remain in University owned housing and the meal plan for the entire academic year (excludes vacation and Intersession periods). Exceptions to this policy may be considered by the Dean of Students for medical reasons as described in the Student Handbooks and must be accompanied by a letter from a parent and physician. If cancellation of the room contract is permitted, ordinarily no refund will be permitted. If withdrawal from a meal plan is approved, refunds will be pro-rated on a per day basis.

Please note that room and board plans do not include vacation or Intersession periods. Students enrolled in the Intersession period are residing in University housing will be charged an Intersession room fee as published each year. Students not enrolled in the Intersession will not be permitted to reside in University housing for reasons of safety, security, and liability. Students enrolled and living in University housing in the Fall, and who return and enroll in the Intersession, must reside in University housing during the Intersession. Students living in University housing will be required to enroll in the Intersession Meal Plan pursuant to the guidance applicable to fall and spring semesters.

TUITION PAYMENTS

Tuition and fees are payable in advance upon registration. Registration is to be completed BY MAIL in July for the fall semester and in December for the spring semester. Without exception, the Laboratory Fee must be paid in all courses having a laboratory requirement.

For freshmen only, a partial tuition payment of $1,000, or one half of net fall tuition charges after application of estimated financial aid, whichever is less, will be due upon receipt of an itemized statement in mid-June.

No student shall be permitted to receive any degree, certificate, or transcript of record until the financial account with the University has been settled.

FAMILY TUITION REDUCTION

Whenever two or more dependent children from the same family are in attendance during the same semester at the University as full-time undergraduate students, the family tuition reduction policy will apply. Also, whenever at least one dependent child in a family is in attendance at the University as a full-time undergraduate student, the family tuition reduction policy will apply for a parent enrolled in *Dexter Hanley College.* The amount of Tuition Credit that will be awarded each semester for each student will be calculated after other financial aid has been applied by Treasurer's Office personnel. Forms and additional information may be obtained from the Treasurer's Office.

MONTHLY PAYMENTS

The University does not accept installment payments directly, but does facilitate this arrangement through four professional agencies: Academic Management Services, 1110 Central Avenue, Pawtucket, Rhode Island 02861; EFI Fund Management Corporation, 2700 Sanders Road, Prospect Heights, Illinois 60070; Tuition Plan Inc., Concord, New Hampshire 03301; and Tuition Management Systems, 226 Bellevue Avenue, Newport, Rhode Island 02840. Brochures are mailed to parents of all incoming students in May of each year.

VISA and Master Card use is available for tuition and fee payments. Please contact Treasurer's office for details.

REFUNDS

If a student is authorized to withdraw with honorable standing from the University for a good cause, a written request may be made for reduced charges for tuition, board and room fees. (Note should be taken that the student may not demand a refund as a matter of right.) Ordinarily, laboratory and special service fees are not refundable. Students withdrawing from individual courses are also eligible to receive credit on their account with the University according to the schedule given below.

SCHEDULE OF REFUNDS	CREDIT
FALL/SPRING SEMESTER	
Before the first day of classes and	
to and including 9 calendar days after classes begin	100%
To and including 16 calendar days after classes begin	75%
To and including 23 calendar days after classes begin	50%
To and including 30 calendar days after classes begin	25%
Beyond 30 days after classes begin	no refund

HEALTH INSURANCE

The University offers each of its undergraduate students the opportunity to enroll in an attractive health insurance plan at the outset of each academic year. All students residing in University housing units must participate in the University's sponsored health program, unless written evidence is presented showing coverage under another health program (e.g. parent's health policy).

SCHOLARSHIPS AND FINANCIAL AID

The University desires to help as many qualified students as possible to complete a college education. For this purpose the University maintains an Office of Financial Aid and all inquiries concerning such assistance should be made to the Director of Financial Aid.

PROCEDURES FOR APPLYING FOR SCHOLARSHIPS AND FINANCIAL AID

1. Submit the University Application for Financial Aid. Incoming students must complete the application found in the Admissions Viewbook by February 15th. Returning students must complete and return the Financial Aid Packet by April 15th.
2. Complete a Needs Analysis Application. Pennsylvania residents and all returning students should apply using the PHEAA State and Federal Student Aid Application. Incoming non-Pennsylvania applicants should complete the Financial Aid Form (FAF) and forward it to the College Scholarship Service using the University code number 2929. Deadline for incoming students is February 15th; for returning students, April 15th. Applications are available from High School Guidance Officers and from the University of Scranton Financial Aid Office.

In order to be eligible for financial aid, students are required to maintain satisfactory academic progress. Standards have been established for federal and University financial aid that measure a student's progress toward a declared educational objective. These guidelines include a maximum time frame for completing a degree, a minimum percentage of credits completed each academic year, and a minimum cumulative Q.P.I. A brief explanation is provided below.

Credit Requirements:

Full-time students are expected to complete their undergraduate degree within five academic years. Part-time students are allotted a period of time that shall not exceed ten academic years. Beginning with the 1990-91 academic year, full-time students must complete a minimum of 24 credits during the year; three-quarter time students, 18 credits; and half-time students, 12 credits. Students enrolled for a combination of full and part-time must earn a proportionate amount of credits.

Academic Requirements:

All students must maintain a cumulative Q.P.I. of 2.00 in order to demonstrate satisfactory academic standing. Additionally, a student on academic probation may not be certified as meeting the satisfactory academic progress requirements.

Students should consult the Scholarship Policy for a full definition of Satisfactory Progress Standards. Copies are available at the Financial Aid Office.

The following financial aid programs are available:

LOANS:

PERKINS LOAN PROGRAM. The University administers this Federal and school program which provides 5% interest loans to needy students. A Needs Analysis Application is required of all loan applicants.

STAFFORD LOAN PROGRAM is available in cooperation with community banks, credit unions, and savings and loan associations. Applications should be obtained from your lender. Freshmen and Sophomores may borrow a maximum of $2625 for each grade level. Juniors and Seniors may borrow a maximum of $4000 per academic grade level. The aggregate maximum for undergraduate study is $17,500.

PLUS/SLS is a loan program available for parents of dependent students and for independent students. A maximum of $4000 may be borrowed for each academic grade level. Additional details and applications are available from community lending institutions.

GRANTS: For the Stafford and PLUS/SLS Loan Programs, grade levels will be based on the University's standard for determining class, which is 29.5 earned semester hours per year.

THE PENNSYLVANIA HIGHER EDUCATION ASSISTANCE AGENCY has been designated by the General Assembly to administer the **State Grant Program.** Students may be awarded from $100 to $2200 per year. Application deadline is May 1.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT is a federal campus-based program awarded by the University. Amounts may range from $200-$2,000 per year to students who demonstrate exceptional need. A Needs Analysis Application is required for this program.

THE PELL GRANT provides Federal grants based on financial need ranging from $100 to $2,300 per academic year. By checking the appropriate box on the Needs Analysis Application, you will automatically be considered for a Pell Grant.

OTHER PROGRAMS:

THE COLLEGE WORK-STUDY PROGRAM is a federal campus-based program that provides on-campus employment during the summer and academic year for students demonstrating financial need. A Needs Analysis Application and a Work-Study Application is required of all applicants for this program.

VETERANS BENEFITS-Veterans and eligible dependents should consult with their local Veterans Administration counselor in order to establish their eligibility for participation.

U.S. ARMY ROTC SCHOLARSHIPS are available. Full details may be secured by contacting the Military Science Department.

OFFICE OF VOCATIONAL REHABILITATION under the Pennsylvania Department of Labor and Industry provides help to qualified students. Residents of other states should inquire about similar programs available in their state of residency.

CAMPUS EMPLOYMENT—In addition to jobs under the Federal College Work-Study Program, the University annually provides a number of jobs in various departments and administrative offices for qualified students. Students seeking campus employment must file a Needs Analysis Application and Work-Study Application.

SCHOLARSHIPS:

Each year the University offers a variety of scholarships which range from full tuition Presidential Scholarships for outstanding high school seniors to partial scholarships which are granted on the basis of the student's scholastic ability and financial need. All applicants must file a Needs Analysis Application.

SCRANTON PREPARATORY SCHOOL SCHOLARSHIP

This four-year tuition scholarship, initiated in 1947 by the President and Board of Trustees of the University, is given annually to a graduate of the Scranton Preparatory School in honor of the following (the name of the scholarship, therefore, rotates from year to year):

THE MOST REV. MARTIN J. O'CONNOR, D.D., SCHOLARSHIP (1987-1991)
—to Kathleen B. McHugh

THE MOST REV. RAYMOND A. LANE, D.D., SCHOLARSHIP (1988-1992)
—to Eric A. Baker

THE MOST REV. WILLIAM J. HAFEY, D.D., SCHOLARSHIP (1989-1993)
—to Mary K. McHugh

THE MOST REV. HENRY T. KLONOWSKI, D.D., SCHOLARSHIP (1990-1994)
—to Francis J. Wren

Selection of the recipient is on the basis of academic achievement, qualities of leadership, service to the Preparatory school, and recommendation of the President and Dean of Studies of the Preparatory School.

PRESIDENTIAL SCHOLARSHIPS

Annually, the University names five *Presidential Scholarships* in honor of distinguished alumni, friends of the University, and citizens of the Scranton area. The scholarships are presented to students with outstanding high school records. The *Presidential Scholarships* have been made possible by University support through unrestricted funds.

The names of the *Presidential Scholarships* and the recipients for 1987-91 are:

THE EDWARD F. BARTLEY SCHOLARSHIP—to Karen M. Burns of West Chester, Pennsylvania (Bishop Shanahan High School).

THE CHARLES G. GONZALEZ, S.J., SCHOLARSHIP—to Jennifer Gruenloh of Glen Lyon (John S. Fine High School).

THE JOHN J. HAGGERTY SCHOLARSHIP—to Eugene P. McGarry of Moosic, Pennsylvania (Scranton Preparatory School).

THE JOSEPH A. QUINN, ESQ., SCHOLARSHIP—to Joseph F. Murray of Moosic, Pennsylvania (Scranton Preparatory School).

THE THOMAS E. SHERIDAN SCHOLARSHIP—to Thomas H. Griffiths, Jr. of Conklin, New York (Susquehanna Valley High School).

The names of the *Presidential Scholarships* and the recipients for 1988-92 are:

THE THOMAS F. GLEESON, S.J., SCHOLARSHIP—to Amy P. Haher of Johnson City, New York (Johnson City Senior High School).

THE SISTER WILLIAM JOSEPH, RSM, SCHOLARSHIP—to Felice Piazza, West Islip, New York (West Islip High School).

THE ARTHUR J. KANIA, ESQ. SCHOLARSHIP—to Michael L. Molineux, Drexel Hill, Pennsylvania (Monsignor Bonner High School).

THE ROBERT T. KELLY, CPA, SCHOLARSHIP—to Brian P. Loftus, Moscow, Pennsylvania (Scranton Preparatory School)

THE ROBERT T. RYDER SCHOLARSHIP—to Cara J. Kelly, Norristown, Pennsylvania (Bishop Kenrick High School).

The names of the *Presidential Scholarships* and the recipients for 1989-93 are:

THE FRED W. ANDRES SCHOLARSHIP—to James M. Snyder of Shiremanstown, Pennsylvania (Trinity High School).

THE DR. THOMAS M. GARRETT SCHOLARSHIP—to Zoe I. Lindsay of Dobbs Ferry, New York (Our Lady of Victory Academy).

THE HERBERT M. McDONALD, M.D. SCHOLARSHIP—to Christina M. Meyer of Springfield, Pennsylvania (Cardinal O'Hara High School).

THE ROBERT E. NOLAN, JR. SCHOLARSHIP—to Joseph P. Redington of Chambersburg, Pennsylvania (Chambersburg Area Senior High School).

THE SISTER JOSEPH WASCAVAGE, C.P., SCHOLARSHIP—to Kathleen A. Sprows of Springfield, Pennsylvania (Cardinal O'Hara High School).

The names of the *Presidential Scholarships* and the recipients for 1990-94 are:

THE RICHARD E. BENNETT SCHOLARSHIP—to Joanne Collins of Staten Island, New York (Saint John Villa Academy).

THE ALBERT R. JASUTA SCHOLARSHIP—to Gail E. Lesavage of Scranton, Pennsylvania (Central High School).

THE GERARD P. JOYCE SCHOLARSHIP—to Lisa Marie Otterbein of Hazleton, Pennsylvania (Bishop Hafey High School).

THE SR. M. GABRIEL KANE SCHOLARSHIP—to Robert P. Wilson of Florham Park, New Jersey (Hanover Park High School).

THE WILLIAM H. OSTERLE SCHOLARSHIP—to Kristen M. O'Hora of Scranton, Pennsylvania (Central High School).

PIUS X SEMINARY SCHOLARSHIP

Dr. Arthur Jordan has initiated the Rev. James Flynn '58 Memorial Scholarship for the purpose of assisting University of Scranton students at Pius X Seminary in need of financial aid.

PURPLE CLUB SCHOLARSHIPS

Noteworthy among gifts to University of Scranton students are the significant amounts annually contributed by the Purple Club of Scranton. Since its founding in 1933, Purple Club contributions have totaled over $350,000.

ENDOWMENT

The University Endowment welcomes gifts of funds or property from alumni, parents of students, and other persons interested in the support of higher education.

Generally, the principal of an "endowment" is non-expendable. Income earned by investment of the endowment may be used for scholarships, awards, academic chairs, maintenance of buildings or other purposes specified by donors.

Some endowments are established by bequest through wills. Charitable Trusts and insurance programs, in more than a dozen variations, also provide a significant source of endowment funds, with the added feature of a life income for the donor. Outright gifts of highly appreciated securities or other property constitute another source of endowment funds.

Those interested in learning more about the cost and tax advantages of establishing a scholarship or other memorial, should contact:

Robert J. Sylvester
Vice President for Development
(717) 941-7661

Paul Strunk
Director of Planned Giving
(717) 941-7662

FUNDED SCHOLARSHIPS

THE ALPERIN FAMILY SCHOLARSHIP FUND—Members of the Alperin Family (Irwin E. Alperin, Myer Alperin, Toni Alperin Goldberg, the late Joel M. Alperin, and their families) established the Alperin Family Scholarship Fund in 1987. The award is given to incoming undergraduate students who have demonstrated excellence in the classroom and who otherwise would be unable to afford a college education. First preference is given to employees of the Alperins: Gold Star Mfg. Co., Inc.; Mayflower Mfg. Co., Inc.; Triple A Trouser Mfg. Co., Inc.; Astro Warehousing, Inc.; and their families, but all worthy students from Lackawanna County and Northeastern Pennsylvania are considered.

THE JOSEPH JAMES AND MARY AGNES ANDRAKO SCHOLARSHIP IN LOVING MEMORY OF ANDREW AND MARY ANDRAKO AND THE JOSEPH JAMES AND MARY AGNES ANDRAKO SCHOLARSHIP IN LOVING MEMORY OF WILLIAM AND AGNES LOFTUS—These funds were established in 1988 according to the provisions in the will of the late Joseph J. Andrako. The income from the funds will be used for grants to students who have financial need and who have demonstrated academic excellence. They must be enrolled in a pre-medical or allied health sciences program.

VELIO E. BERARDIS, M.D., MEMORIAL SCHOLARSHIP—In 1989 Mrs. Dorothy Berardis established a fund to honor the memory of her husband, Velio E. Berardis, M.D. This fund provides awards, based on merit and need, to senior pre-med students who hope to attend medical school. Special preference is given to those who plan to attend Jefferson Medical College.

THE FRANCIS P. BOLAND, M.D., MEMORIAL SCHOLARSHIP—Family, friends and colleagues established this fund shortly after Dr. Boland's death in 1987. Each year a grant is given to Lackawanna County residents who are pre-med students. The award is based primarily on merit, so most pre-medical candidates are eligible for it.

BURKE FAMILY SCHOLARSHIPS—In 1966 and 1967, contributions were made to the Scholarship Endowment Fund of the University in the name of the Burke Family Foundation. In prior years, additional unrestricted gifts have been made by the Burke Family Foundation. The income from the fund is used to provide scholarships for needy and deserving students. The Burke family was originally from the Hyde Park section of Scranton. Thomas F. Burke, Class of '09, played a leadership role in founding the scholarship.

REV. HENRY J. BUTLER, S.J., MEMORIAL SCHOLARSHIPS—The first was established in 1984 by James Summers in honor of the Executive Vice President of the University who died in office in 1981. A second Butler Scholarship was established in 1985 by John A. McCrane, a classmate of Father Butler at Georgetown University.

BRIDGET CARNEY SCHOLARSHIP—This fund was established in 1972 by a bequest of James I. Kearney, M.D. Income from the fund, which is named to honor the memory of Dr. Kearney's mother, is used for scholarships for students, one or both of whose parents were or are parishioners of St. Ignatius Parish, Kingston, Pennsylvania.

PETER CHEUNG/HILL NEIGHBORHOOD ASSOCIATION SCHOLARSHIP—This fund was named for Peter Cheung, a resident of Wayne House and director of the annual "haunted house", who died in an accident while an undergraduate. Awards from this fund are given to a junior or senior who has demonstrated service to the neighborhood and the University community. Preference is given to residents of the City of Scranton's Hill Neighborhood.

JAMES J. CLAUSS SCHOLARSHIP FUND—Established in 1973 by an alumnus, Class of '47, and local businessman, this fund provides investment income to aid students who require financial assistance, but do not qualify for most scholarship programs based on financial need. First consideration is given to Northeastern Pennsylvania students.

JON A. CLAUSS SCHOLARSHIP FUND—A Scholarship Endowment was established in 1980 to honor the memory of Jon A. Clauss, son of Dr. and Mrs. Thomas F. Clauss of Justus, Pa. Income from the endowed scholarship is distributed to deserving young men and women by the University's Financial Aid Office.

ROBERT I. EDELSOHN SCHOLARSHIP FUND—In 1964 a sum was bequeathed in the Estate of Robert I. Edelsohn, a Polish immigrant who became a Scranton businessman and realtor, to be held in trust by the University of Scranton. Income from the fund is used to furnish scholarships for deserving students at the University, who "without such assistance, might not be able to obtain the advantage of a college education."

THE MARTHA FITCH SCHOLARSHIP FUND—In 1955 a bequest was made to the University in the Will of Miss Martha Fitch, a retired nurse and former superintendent of Thompson Hospital, Scranton. Income from this fund is used to provide scholarships for needy and deserving students.

THE SARA G. FRIEL MEMORIAL SCHOLARSHIP FUND—Before her death in 1982, Sara G. Friel, aunt of then University President, William J. Byron, S.J., directed that part of her estate be used to endow a scholarship fund at the University of Scranton. Income from the Fund is distributed to deserving and financially needy students each year by the Director of Financial Aid.

THE REVEREND JOSEPH GIRARD GILBRIDGE MEMORIAL SCHOLARSHIP—This fund is for residents of Peckville (Blakely Borough), Carbondale, Throop, Nanticoke, the Parsons Section of Wilkes-Barre, and Plymouth; all in Northeastern Pennsylvania. It was established by Fr. Joseph G. Gilbride, prior to his death, to provide scholarships to needy and worthy students. The scholarships were first presented in 1988, the University's centennial year, "for the purpose of signaling the enchanting and challenging citizenry of the above communities, all citizens of which, regardless of any distinctions were most helpful" to Fr. Gilbride during his lifetime.

THE LEN AND DEBORAH GOUGEON ST. ANN'S SCHOLARSHIP—Established in 1986 through a gift from Drs. Len and Deborah Gougeon. This award, based on need, will provide assistance to a graduate of St. Ann's Grammar School or a member of St. Ann's Monastery Parish, Scranton, PA.

ROSE GRESS SCHOLARSHIP FUND—Mr. and Mrs. Edward Gress in 1982 established this fund through a trust agreement with the University. Income from the trust is applied toward the expenses of a deserving student. First preference for the award is given to students who are residents of the Scranton area.

THE EDWARD T. GRONCKI SCHOLARSHIP—Established to honor the memory of a University of Scranton alumnus, the scholarships are awarded to deserving young men and women selected by the Director of Financial Aid. First consideration is given to residents of the Minooka and Greenwood sections of Northeastern Pennsylvania and graduates of St. Mary of the Assumption School, South Scranton. The late Attorney Groncki was, at the time of his death, the leading independent specialist in mutual funds and tax shelters in the Washington, D.C. area. His support, during life, of numerous projects to aid young people, led to the creation of the scholarship by family members and close friends.

RUTH GUNSTER MEMORIAL FUND—In 1971, Joseph F. Gunster, Class of '71, established the Ruth H. Gunster Memorial Fund in loving memory of his wife. This fund, which was increased by a bequest in 1980, is invested and the income is used for scholarships given annually to students from Northeastern Pennsylvania.

JUDGE FREDERICK W. GUNSTER SCHOLARSHIPS—The Estate of Joseph F. Gunster also provided funds for this scholarship to honor the memory of his father. Awards are made on the basis of merit.

MARGARET GUNSTER SCHOLARSHIPS—Joseph F. Gunster's mother is remembered through a scholarship fund designed to assist students from low income families. This fund was also established by Mr. Gunster's bequest.

THE JOHN AND LUCILLE GUZEY SCHOLARSHIP—An endowed scholarship by Mr. and Mrs. John Guzey was begun initially in 1978 and added to in 1983. Originally developed to assist members of the Central Scranton Boys' and Girls' Clubs, this fund is now unrestricted and is awarded on the basis of financial need.

THE DERMOT HARRIS FOUNDATION—The Dermot Harris Foundation will support promising young men and women from the Republic of Ireland. This Foundation was started in 1987 by actor Richard Harris in honor of his brother Dermot.

THE HOESCHELE-STEINMETZ SCHOLARSHIP—This fund was established by General Electric in honor of David B. Hoeschele, an alumnus of the class of 1950. Mr. Hoeschele was chosen by G.E. for their prestigious award for his leadership in the field of electronic circuit design. He then requested the award be used to establish a scholarship for United States citizens or permanent residents from Northeastern Pennsylvania. The recipient should be enrolled as a full-time undergraduate in either the Physics or Electronic Engineering program. This scholarship is based on need and academic merit.

THE FRANK AND JEAN HUBBARD SCHOLARSHIP FUND—This fund was established through a generous gift from Frank and Jean Hubbard. It is for individuals who graduated from North Pocono High School in the top 25% of the class and have a financial need. It is expected that the recipient will take a minimum of fifteen credits each semester.

ITT SCHOLARSHIP FUND—The International Telephone and Telegraph Corporation established this scholarship fund to encourage students to pursue academic excellence. The Dean of Admissions annually selects an incoming freshman to receive the award, which is renewable based on academic achievement.

THE JESUIT COMMUNITY SCHOLARSHIP FUND—Substantial annual gifts from the University of Scranton Jesuit Community have made possible an endowment to provide unrestricted scholarship aid to deserving students. Most awards are based on financial need and academic achievement.

THE JETHRO SCHOLARSHIP—Funded with an endowment established by a University of Scranton faculty member, Dr. Everett R. Brown, the grant is awarded to a freshman Management, Marketing or Economics/Finance major who demonstrates that he or she has earned a significant amount of total college expenses. It is not dependent upon financial status of parents, nor high schoól grades. The grant may be repeated throughout the period of undergraduate study, as long as the recipient maintains a grade point average of 3.00 or better.

B. CARL JONES MEMORIAL SCHOLARSHIP FUND—This fund was established in 1988 by family, friends and colleagues of the late B. Carl Jones, a University trustee and benefactor. The fund provides financial assistance, based on need, to students from Lackawanna County who are enrolled in the School of Management.

THE FRANCIS J. KEARNEY SCHOLARSHIP FUND—A 1977 gift from a retired pharmacist, followed by a bequest in 1979, made possible this Scholarship Fund to assist deserving students in need of financial aid.

KOCH-CONLEY AMERICAN LEGION SCHOLARSHIP—Established in 1985 by agreement with the American Legion, these scholarships are provided on the basis of academic achievement and financial need. First preference for these awards is given to sons, daughters, nieces, nephews and grandchildren of the members of the Koch-Conley American Legion Post 121. Thereafter, similar family members of other Pennsylvania American Legion Post members may be considered.

REV. STEPHEN A. KOLLAR MEMORIAL SCHOLARSHIP FUND—A fund was established in 1977 in accordance with directions set forth in the Will of the late pastor of Holy Family Church, North Washington Ave. at Gibson St., in Scranton. A maximum of $500 per year is made available to each recipient. Applications must be considered in the following priority: 1) Kinship to the deceased, the Rev. Stephen Kollar; 2) members of the Holy Family Parish Congregation of Scranton for a minimum of three years prior to filing the application. In the event that there are no eligible candidates in categories (1) and (2), other needy students may be considered.

THE MARY R. WALSH KRAHE SCHOLARSHIP—This scholarship was established in 1987 by Mary R. Walsh Krahe to honor the memory of her brothers, Nicholas E. Walsh and William E. Walsh, and the Walsh family of Old Forge, PA. Funds from the endowment are used to provide scholarship support to a student from Lackawanna County. First preference will be given to students who attended Old Forge High School.

KUEHNER SCHOLARSHIP FUND—This fund was established by Carl, class of '62, and Joanne Kuehner of New Canann, CT in 1985. Income from this fund provides financial assistance to needy students from single parent families in Lackawanna County.

EDWARD P. LEAHY SCHOLARSHIP FUND—An endowed fund established in 1989 by Edward R. Leahy, Esq., in honor of his late uncle provides scholarships for needy students, including those entering the University as freshmen.

THE WILLIAM V. LOUGHRAN AND ALBERT E. PETERS SCHOLARSHIP FUND—Established in 1985 through a gift of Albert E. Peters and Elizabeth Loughran Peters, this fund provides awards, based on merit and need, to seniors who intend to pursue graduate studies in the fields of science, chemistry, and medicine. The fund is to be open-ended so that members of the Loughran and Peters families may continue to contribute to the scholarship, increasing its value through the years to benefit additional University students.

THE BRUCE LOWENBERG AND JOHN MCLEAN KELLY MEMORIAL FUND—This fund was established in 1988 by Mrs. Frances McLean Lowenberg. Income from an endowment provides scholarship grants to qualified and deserving young men and women.

THE FRANK J. AND MAE C. MacENTEE MEMORIAL SCHOLARSHIP—Founded by the MacEntee Family in memory of their beloved parents. This scholarship will assist deserving students with their education costs at the University of Scranton.

THE ROBERT L. McDEVITT K.S.G. SCHOLARSHIP—Income from a Fund established in 1977 provides scholarship assistance to qualified and deserving Hanley College students. The scholarship was established by Robert L. McDevitt, K.S.G., a Georgetown University classmate and longtime friend of the late Rev. Dexter L. Hanley, S.J., who served as president of the University from 1970 to 1975.

THE JOHN P. MCLEAN SCHOLARSHIP FUND—This fund, established in 1985 by former trustee, Thomas E. Sheridan '60, and many other alumni, students, family and friends, is named in honor of Professor John P. McLean, a School of Management faculty member for over 50 years. Income earned by the endowed fund is distributed to deserving accounting students.

THE MERCY HOSPITAL NURSING SCHOLARSHIP—In 1988 Scranton's Mercy Hospital established a scholarship for full-time nursing students. Preferred eligibility would be for employees of Mercy Hospital and/or children or spouses of employees. Other than employees, the recipient must be a resident of Lackawanna County. This scholarship is based on merit.

CHARLES E. MERRILL SCHOLARSHIPS—In 1969, the Charles E. Merrill Trust of New York City made a gift to the Scholarship Endowment Fund of the University. The income from this endowment is awarded for scholarship assistance to students of the Catholic faith.

THE ANGELO H. MONTRONE SCHOLARSHIP FUND—This fund was established by Paul M. Montrone, President of the Henley Group, Inc. and a member of the class of 1962, to honor his father. Each year, the Director of Financial Aid awards a scholarship to a School of Management student who best exemplifies the senior Mr. Montrone's life-long dedication to self-improvement and ethical behavior in business management.

THE MOSES TAYLOR HOSPITAL NURSING SCHOLARSHIP—This fund was established in 1989 by Moses Taylor Hospital of Scranton, PA. The recipient of this merit scholarship must be a nursing major. Moses Taylor Hospital employees and their families, along with residents of Lackawanna County, are given first preference.

THE ROBERT W. MUNLEY MEMORIAL SCHOLARSHIP—This fund was established by Robert W. Munley, Esq. and Judge James M. Munley as a way of honoring their father Robert W. Munley. Income from this fund will support deserving young students from Lackawanna County.

THE MURPHY SCHOLARSHIP FUND—This fund was established in 1957, through bequest of Miss Margaret Murphy, a retired schoolteacher and lifelong resident of Scranton. A marker has been placed on campus designating the gifts as having been made by Margaret and her sister Katherine "in loving memory of our mother, father and brothers." The income of this fund is used to provide scholarships for needy and deserving students.

THE NEPA APICS SCHQLARSHIP—Established in 1987 by Northeastern Pennsylvania Chapter of the America Production and Inventory Control Society for qualified junior or senior students enrolled in the Production Management major of the School of Management and/or active members of the University of Scranton Chapter of APICS.

JAMES NASSER FAMILY SCHOLARSHIP FUND—This fund was established in 1986 by Mr. and Mrs. James R. Nasser. Each year the Director of Financial Aid awards the scholarship to a student in need of assistance. Preference is given to students from Lackawanna County.

THE DR. EDWARD J. NOTARI SCHOLARSHIP—Each year two freshman Physical Therapy students will receive a grant which will be carried through the completion of their senior year. To be eligible the student must have graduated from a high school in, and be a resident of, Lackawanna, Susquehanna, Luzerne, Monroe, Pike, Wyoming, Columbia, Schuylkill, or Carbon Counties. These scholarships are based on merit. Upon graduation, the physical therapist agrees to work for two years at Allied Services for the Handicapped facility. Allied is the sponsor of the Notari Scholarship. Further information is available at the office of Financial Aid.

THE RAYMOND S. O'CONNELL SCHOLARSHIP—Shortly before his death in late Spring of 1981, an alumnus of St. Thomas College, Raymond S. O'Connell, established a fund for students who otherwise might not be able to attend college. His sister, Sara E. O'Connell, completed the gift after Raymond's death.

THE MARIAN N. AND PATRICK F. O'HARA SCHOLARSHIP—Income from an endowment provides unrestricted scholarship grants to deserving young men and women. Selection of recipients is made by the University Financial Aid Office.

OPPENHEIM FAMILY SCHOLARSHIP—This fund was established by the Oppenheim Family, who for many years owned and operated Oppenheim's Department Store and its predecessor, The Scranton Dry Goods Co. Income from the fund is used primarily for part-time, non-traditional students who need financial assistance. For further information contact the Office of Financial Aid or the Dean of Dexter Hanley College.

ERNEST D. PREATE SCHOLARSHIP FUND—The family of Attorney Ernest D. Preate, Sr. established a scholarship fund in March 1982. Income earned by the Fund is distributed to deserving students. Selections of the student beneficiaries is made by the Director of Financial Aid, in consultation with the Treasurer and Dean of Admissions. First consideration is given to needy students who are residents of Lackawanna County.

THE FRANCIS E. AND ELIZABETH BRENNAN REDINGTON SCHOLARSHIP FUND—This fund was established in 1984 according to provisions in the will of the late Francis E. Redington. It provides financial assistance to students on the basis of both ability and need. Some portion of the income each year supports scholarships for students from the Republic of Ireland.

JOHN CHARLES & KATHRYN S. REDMOND FOUNDATION SCHOLARSHIP—The income from this fund will be directed to an outstanding student who is not eligible for any direct financial aid, as specified by state or federal regulations. However, due to the student's family situation (e.g., number of children in school needing parental support) there is a financial need. For more information contact the Office of Financial Aid.

THE DR. RICHARD A. RENDICH EDUCATIONAL SCHOLARSHIP FUND—This endowed scholarship fund was established by the family of University alumna, Grace Rendich. Income from the fund is used to assist in the education of needy young men aspiring to the priesthood.

JOHN M. ROBINSON SCHOLARSHIP FUND—An initial gift in 1974 and additional yearly gifts have established a fund which is used to generate scholarship income for promising and deserving students. Scranton area residents receive first consideration. Mr. Robinson attended the University and subsequently established LPS Industries Inc. in Newark, NJ.

THE JOSEPHINE SARCINELLI MEMORIAL SCHOLARSHIP FUND—Med Science Laboratories, Scranton, established this scholarship in 1983 to honor the memory of Josephine Sarcinelli, the office manager of the firm for many years. The annual scholarship is awarded by the Director of Financial Aid to an incoming freshman from Lackawanna County who is in financial need and intends to major in medical technology.

THE SPECIALTY PLASTIC PRODUCTS, INC. EDUCATIONAL FUND—This fund was established in 1988 by Specialty Plastic Products, Inc. of Dunmore, PA. Income from the fund will be used to provide scholarship support to Dunmore High School graduates who have been a contributing member of the Dunmore High School community; evidenced by his or her involvement in school and/or community activities.

THE AMELIA SURACI SCHOLARSHIP FUND—This endowed scholarship fund was established in 1977 by the late Mr. Frank Suraci, Chairman of Parodi Cigar Corporation, to honor his wife Amelia. After Mr. Suraci's death, contributions from the Suraci and Keating families were added to the endowment. Each year, income from the fund is distributed to deserving and needy students.

THE PAUL L. WALEFF MEMORIAL SCHOLARSHIP—This Fund was established by the parents of Paul L. Waleff, who died in 1984 while a student at the University of Scranton. Each year, the Director of Financial Aid awards the scholarship to a senior or junior who plans a career of service to the handicapped.

THE WILLIAM ZAHLER SCHOLARSHIP FUND—In 1986, Mr. and Mrs. William P. Zahler of Mayfield Heights, Ohio established a scholarship in memory of their son William Zahler, Jr. Their son had been an associate professor of English at the University until his untimely death in 1986. Income from the endowed scholarship is distributed to deserving young men and women by the University's Financial Aid Office.

FUNDED AWARDS

DR. A.J. CAWLEY AWARD—In memory of Dr. A.J. Cawley of Pittston, Pa., a fund was established by a legacy from his sister, Miss Ellen Cawley. Income therefrom is used to provide an award to a Physics Major each year.

JOSEPH P. HARPER AWARD—A fund was established in 1967 to honor the memory of Joseph P. Harper, Professor of Physics. An annual award is given to a senior Physics major upon the recommendation of the Physics department and with the approval of the Director of Financial Aid. The Department of Physics presents with the award, a citation reminding the recipient of the high scholarly ideals, exemplary life, and dedicated service represented by Professor Harper.

THE KATHRYN AND BERNARD HYLAND MEMORIAL AWARD FOR EXCELLENCE IN BIOLOGY—A gift from alumnus Bernard V. Hyland, M.D., made in loving memory of his parents, established in 1980 an endowment to perpetuate this annual award. The award is presented to a graduating senior from the Biology Department who, in the opinion of the department's faculty, has achieved distinction based on academic excellence in biology, personal integrity and concern for others.

THE ROSE KELLY AWARD—A University of Scranton alumnus, Joseph Wineburgh, Ph.D., set in place an endowment to link the efforts of elementary and secondary school teachers to the achievements of college students. Each year, an outstanding student is selected by a committee appointed by the Academic Vice President. The Rose I. Kelly Award winner is asked to name a high school or elementary teacher who most influenced his or her pre-college academic preparation. Both the student and the teacher from pre-college days are honored at a campus ceremony. The student also receives a plaque and a book, selected by the student's department chairman. A copy of the same book is placed in the University Library.

Dr. Wineburgh established the program to honor an elementary teacher, Rose I. Kelly, who greatly influenced his life.

O'MALLEY, HARRIS & SCHNEIDER PRE-LAW AWARD—This award is based on the outcome of an annual competition among full-time undergraduates (excluding seniors) at both the University of Scranton and Marywood College. Entry information is available from either school's pre-law advisor. Completed entries are submitted at the end of the spring semester. The law firm O'Malley, Harris & Schneider, P.C., are sponsors of this award.

THE BERNARD SHAIR MEMORIAL AWARD—This award was established by family, friends and colleagues of Dr. Shair through the Scranton Area Foundation. It will be presented annually to a graduating senior of the University of Scranton who has been enrolled in an accredited dental school the same year of the award.

ANNUAL SCHOLARSHIPS

UNICO SCHOLARSHIPS—Continuing yearly contributions are made to the University scholarship fund by the Scranton Chapter of UNICO (Unity-Neighborliness-Integrity-Charity-Opportunity), a national service organization. Scholarship help, not to exceed $500 per recipient, is granted yearly to students demonstrating financial need and good academic standing.

LACKAWANNA COUNTY LAWYERS' AUXILIARY SCHOLARSHIP—Established in 1982, this award is annually presented to an outstanding graduating senior from Lackawanna County to provide scholarship assistance in first year of law school. The scholarship is given directly by the Lawyers' Auxiliary, upon the recommendation of the University Pre-Law Advisor.

BIENNIAL SCHOLARSHIP

FRIENDLY SONS OF ST. PATRICK SCHOLARSHIP—Biennially the Society provides funds for a University of Scranton student to enjoy the benefits of an academic experience, usually one or two semesters, in Ireland. The grant is for $2,000. Contact Dr. Mary Engel, Associate Dean of the College of Arts and Sciences, for further information.

ENDOWED CHAIRS

THE ALPERIN CHAIR IN BUSINESS ADMINISTRATION—Established by an endowment, this academic chair was set in place in 1980 through the gifts of three Scranton businessmen: Joel, Irwin and Myer Alperin, and their families.

The late Joel Mitchell Alperin was the originator and the principal sponsor of the chair and its endowment. Income from the Alperin brothers' gift is applied to the salary of a professor in the School of Management.

THE CHAIR IN JUDAIC STUDIES—Income from an endowment established by alumni and friends of the University makes it possible for the University to invite, for short visits to Scranton, Judaic scholars from Israel, or other parts of the world, for public lectures and meetings with students and faculty.

THE PIUS X TEACHING CHAIR OF THEOLOGY—Established in 1976 by an anonymous gift, and the assignment of a matching grant from the University's Commitment to Excellence capital campaign, this chair is occupied by a priest, or jointly by a set of priests, of the Diocese of Scranton. The chairholders are nominated by the faculty of St. Pius X Seminary and approved by the faculty of the Department of Theology and Religious Studies at the University.

THE JOSEPH T. AND FRANK M. McDONALD CHAIR—Income from an endowment established by George and Dr. Herbert McDonald is used primarily to support the Pre-Law program, including support of the pre-law advisor, internship program, and advisory team; income is also used to provide scholarship assistance to deserving students in pre-law majors.

OTHER ENDOWMENTS

THE GUNSTER LIBRARY FUND—Established by the 1980 bequest of Joseph F. Gunster, Class of '17, income from this fund provides annual support for Alumni Memorial Library.

JESUIT COMMUNITY CONTRIBUTION—Total contributed services of the members of the Jesuit Community of Scranton have been approximately $3,000,000 since 1942. This gift of funds, returned to the University from payments made to Jesuits for their services, has enabled the University to offer many scholarships from its operating budget and has substantially aided the building program.

JOHN J. LONG, S.J., FUND—Contributions to this fund were made by friends of the Very Rev. John J. Long, S.J., President of the University 1953-1963, on the occasion of his Golden Jubilee in the Society of Jesus and later as a memorial after his death in 1971. The fund is invested and the income therefrom is used for projects and programs concerned with the spiritual growth of students.

THE LOYOLA LECTURE—The Jesuit Community serving the University of Scranton has endowed a lecture program intended to bring distinguished Jesuit speakers to campus. Named in honor of St. Ignatius Loyola, founder of the Jesuit Order, this fund can also support visits by other scholars capable of assisting the University community to better appreciate the Jesuit heritage.

Architect's rendering of the new University library to be built on Monroe Avenue and the University Commons.

University Directory

Dr. Richard H. Passon
Provost and Vice-President for Academic Affairs

Crucial to the fulfillment of the University's mission is its dedicated corps of faculty and staff, who work together to provide a stimulating and supportive environment for student achievement.

Officers of the University Corporation

J.A. Panuska, S.J., President
Marilyn Coar, Secretary
David E. Christiansen, Treasurer

BOARD OF TRUSTEES

Ronald J. Anton, S.J.
Joseph A. Appleyard, S.J.
John J. Begley, S.J.
Royden B. Davis, S.J.
Louis DeNaples
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Alice A. Ducey
William L. George, S.J.
Kevin C. Gottlieb
Francis R. Herrmann, S.J.
John J. Higgins, S.J.
William R. Lynett
Sr. Matthew A. MacDonald, SSJ
Edward J. Manley
Mary E. McDonald
Thomas J. McHugh, Esq.
Sen. Robert J. Mellow
Morey M. Myers, Esq.
Hon. Robert N.C. Nix, Jr.
Eugene A. Nolan, S.J.
J.A. Panuska, S.J.
Robert F. Pugliese, Esq.
Msgr. Paul J. Purcell
Elizabeth B. Redington
John P. Rochon
Michael E. Ryan, Esq.
Patrick T. Ryan, Esq.
Stuart Subotnick
Samuel P. Todaro, M.S.
David L. Tressler

ADMINISTRATION

President of the University (1982)
J.A. Panuska, S.J. (1982)
Professor, Biology (1982)
B.S., Loyola College;
Ph.L., Ph.D., St. Louis University;
S.T.L., Woodstock College

Provost and Vice President for Academic Affairs (1984)
Richard H. Passon (1984)
Professor, English (1984)
A.B., King's College;
M.A., Ph.D., University of Notre Dame

Vice President for Administrative Services (1983)
John S. Flanagan (1974)
A.B., College of William and Mary;
M.S., University of Alabama

Director of Campus Ministries (1976) and University Chaplain (1989)
Thomas D. Masterson, S.J. (1976)
Assistant Professor, History/Political Science (1976)
A.B., M.A., Fordham University;
Ph.L., S.T.B., S.T.L., Woodstock College;
M.A., Ph.D., Georgetown University

Vice President for Development (1983)
Robert J. Sylvester (1983)
B.S., University of Scranton;
M.A., Fairfield University

Vice President for Student Affairs (1988)
James T. Bryan (1988)
B.S., State University of New York at Fredonia;
M.A., Michigan State University;
Ed.D., Columbia University

Vice President for Finance/Treasurer (1987)
David E. Christiansen (1987)
B.S., M.B.A., LaSalle University

Vice President for Planning (1986)
Glenn Pellino (1980)
B.A., M.A., St. Louis University;
Ph.D. Cand., University of Michigan

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Dean, College of Arts and Sciences (1990)
Paul F. Fahey, D. et U.* (1968)
Professor, Physics/Electronics Engineering (1978)
B.S., University of Scranton;
M.S., Ph.D., University of Virginia

Dean, Dexter Hanley College,
Director of Instructional Development
and of Learning Resources Center (1986)
Shirley M. Adams (1986)
Assistant Professor, Education (1986)
B.A., University of Northern Iowa;
M.A., University of Iowa;
Ph.D., Iowa State University

Dean, Graduate School and
Director of Research (1985)
Thomas P. Hogan (1985)
Professor, Psychology (1985)
B.A., John Carroll University;
M.A., Ph.D., Fordham University

Assistant Provost/AVP (1987)
Lee Williames (1987)
Professor, History/Political Science
B.A., LaSalle University;
M.A., Niagara University;
A.C.S., Soviet Institute, Niagara University;
Ph.D., State University of New York at Binghamton

Associate Dean, College of Arts and Sciences (1986)
Director, Academic Advising Center (1987)
Mary F. Engel (1986)
Associate Professor, English (1986)
B.A., St. Bonaventure University;
L.L., Katholieke Universiteit te Leuven;
Ph.D., Kent State University

Dean Emeritus/Assistant to Academic
Vice President (1984)
Charles J. Buckley, D. et U. * (1947)
Associate Professor, Accounting (1968)
B.S., University of Scranton;
M.B.A., New York University

Dean, School of Management (1986)
Joseph J. Horton (1986)
Professor, Economics/Finance
B.A., New Mexico State University;
M.A., Ph.D., Southern Methodist University

Acting Dean, College of Health, Education,
and Human Resources (1990)
Joseph A. Fusaro (1974)
Professor, Education (1983)
Chairperson, Department of Education (1990)
B.A. Rider College, Rider College
M. Ed., University of Vermont
Ed.D., State University of New York at Albany

Dean of Admissions (1981)
Bernard R. McIlhenny, S.J., D. et U. * (1958)
A.B., M.A., Loyola University Chicago;
S.T.B., Woodstock College

Assistant Vice President for Operations, (1988)
Martin L. Langan (1974)
B.S., M.B.A., University of Scranton

Associate Dean, School of Management (1985)
George V. Babcock, D. et U. * (1963)
Associate Professor of Economics/Finance
A.B., M.A., Ph.L., Boston College;
M.B.A., New York University

Special Assistant to the President (1987)
Rev. William Hill, S.J., D. et U. * (1946-47, 1969)
Professor, English (1969)
A.B., Georgetown University;
Ph.L., Woodstock College;
M.A., Ph.D., Fordham University

Director of Library
John Stalker (1989)
B.A., Canisius College;
M.A., M.S.L.S., Ph.D. University of North
Carolina at Chapel Hill

Executive Director of Technology Center (1988)
Jerome DeSanto (1979)
B.S., M.B.A., University of Scranton

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

FACULTY

PROFESSORS EMERITI

Panos Apostolidis, Ph.D.
(1977-1989)
Department of Management/Marketing

Martin D. Appleton, Ph.D.
D. et U. * (1955-1988)
Department of Chemistry

John J. Baldi, M.S.S.W., D.S.S.
D. et U. * (1948-1981)
Department of Sociology

Edward F. Bartley, M.A.
D. et U. * (1938-1987)
Department of Math/Computer Science

Everett R. Brown, Ph.D.
(1975-1988)
Department of Management/Marketing

Frank A. Cimini, M.A.
D. et U. * (1941-1985)
Department of Foreign Languages and Literatures

Matthew C. Farrell, Ph.D.
D.et U. * (1967-1990)
Department of Education

Thomas M. Garrett, Ph.D.
D. et U. (1960-1988)
Department of Philosophy

Walter Haab, Ph.D.
D. et U. * (1942-1980)
Department of Chemistry

William B. Hill, S.J., S.T.L., Ph.D.
D. et U. * (1946-1947, 1969-1983)
Department of English

Daniel J. Houlihan, J.D.
D. et U. * (1947-1985)
Department of Accounting

Anne J. Jones, M.A.
D. et U. * (1967-1987)
Department of Fine Arts (1975-1986)

Helen P. Kelly, M.S.
D. et U. * (1959-1980)
Assistant Librarian

Zim E Lawhon, M.S.
D. et U. * (1964-89)
Department of Military Science

Lawrence J. Lennon, Ph.D.
D. et U. * (1946-1974)
Department of Psychology

John P. McLean, B.S.
D. et U. * (1940-1990)
Department of Accounting

Marianne McTighe, M.S.
D. et U. * (1946-1986)
Associate Librarian

John J. Murray, Ph.D.
D. et U. * (1957-1988)
Department of English

Mildred A. Norton
D. et U. * (1946-1988)
Associate Librarian

Matthew R. O'Rourke, M.A.
D. et U. (1955-1982)
Department of English

William H. Osterle, M.A.
D. et U. * (1956-1990)
Department of Theology/Religious Studies

Andrew W. Plonsky, M.S., E.E.
D. et U. * (1947-1980)
Department of Math/Computer Science

Edward R. Powers, S.J., M.A., S.T.L.
D. et U. (1955-1985)
Department of Math/Computer Science

Stephen P. Ryan, Ph.D.
D. et U. * (1960-1981)
Department of English

Henry V. Sattler, C.SS.R.
D. et U. * (1967-1988)
Department of Theology

Angelina T. Scardamaglia, M.S.
D. et U. * (1947-1978)
Assistant Librarian

Timothy H. Scully, M.A.
D. et U. * (1948-1951, 1956-1988)
Department of History/Political Science

Joseph A. Szuhay, Ph.D.
D. et U. * (1964-1989)
Department of Human Resources

Charles B. Trundle, S.J., M.A., S.T.L.
D. et U. * (1948-1951, 1953-1975)
Department of Theology

John C. Williams, M.S.
D. et U. * (1964-1990)
Department of Education

Leonard N. Wolf, Ph.D., D.Sc.
D. et U. * (1937-1974)
Department of Biology

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* * On Leave

PROFESSORS

Masoud Abessi (1990)
Visiting Assistant Professor,
Quantitative Management Systems (1990)
B.S., Gazalli;
M.S., University of Dallas;
Ph.D. Cand., Clemson University

Bert Akers, S.J. (1986)
Associate Professor, Communication (1986)
B.A., Ph.L., St. Louis University;
S.T.L., University of Innsbruck;
S.T.D., Woodstock College

Brad A. Alford (1989)
Assistant Professor, Psychology (1989)
B.A., Millsaps College;
M.A., Ph.D., University of Mississippi
Licensed Clinical Psychologist

Barry R. Anderson (1974)
Associate Professor, Biology (1980)
B.S., State University of New York at Fredonia;
M.S., Ph.D., Lehigh University

Patricia A. Bailey (1983)
Associate Professor, Nursing (1987)
Chairperson, Department of Nursing (1988)
B.S.N., Ed.M., Ed.D., Columbia University

Harold W. Baillie (1978)
Associate Professor, Philosophy (1987)
A.B., Yale University;
M.A., Ph.D., Boston College

Thomas E. Baker (1975)
Assistant Professor, Sociology/Criminal Justice (1975)
B.S., M.S., Virginia Commonwealth University;
M.Ed., M.S., East Stroudsburg University

William M. Baker, C.P.A. (1985)
Assistant Professor, Accounting (1985)
B.S., Pennsylvania State University;
M.B.A., University of Scranton

Galen L. Baril (1975)
Associate Professor, Psychology (1985)
B.A., University of Nevada;
Ph.D., University of Maine

Carolyn E. Barnes (1988)
Professor, Physical Therapy (1988)
Chairperson, Department of Physical Therapy (1988)
B.A., Fairmont State College;
M.S., West Virginia University;
Certificate in Physical Therapy,
D.T. Watson School of Physiatrics;
Ph.D., University of Pittsburgh

Stephen S. Batory (1989)
Associate Professor, Management/Marketing (1989)
B.S., King's College;
M.B.A., Old Dominion University;
D.B.A., University of Maryland

Christopher Baumann (1984)
Associate Professor, Chemistry (1989)
B.S., Oregon State University;
Ph.D., University of Florida

Rebecca S. Beal (1983)
Associate Professor, English (1988)
A.B., Westmont College;
M.A., University of Chicago;
Ph.D., University of Texas

John Begley, S.J. (1985)
Associate Professor, Theology/Religious Studies (1985)
A.B., M.A., Boston College;
Ph.L., S.T.L., Weston College;
S.T.D., Gregorian University

John A. Beidler, C.D.P., D. et U.* (1964)
Professor, Computer Science (1976)
Chairperson, Department of Computer Science (1980)
A.B., King's College;
M.A., Lehigh University;
Ph.D., Pennsylvania State University

Paul R. Beining, S.J., D. et U.* (1949-1951, 1967)
Professor, Biology (1974)
B.S., Ph.L., Spring Hill College;
S.T.L., Woodstock College;
M.S., Ph.D., The Catholic University of America

J. Brian Benestad (1976)
Professor, Theology/Religious Studies (1989)
A.B., Assumption College;
S.T.L., Gregorian University;
Ph.D., Boston College

W. Andrew Berger (1989)
Assistant Professor, Physics/Electronics Engineering (1989)
M.S., Technical University of Poznan, Poland;
M.S., Ph.D., Drexel University

Robert M. Bessoir, D. et U.* (1968)
Associate Professor, Physical Education (1973)
B.S., University of Scranton;
M.S., East Stroudsburg University

Steven B. Bessoir (1989)
Capt., U.S. Army
Assistant Professor, Military Science (1989)
B.S., University of Scranton

Gerald Biberman (1981)
Associate Professor, Management/Marketing (1987)
B.A., M.A., Ph.D., Temple University

Frederic A. Birmelin (1985)
Assistant Professor, Physics/Electronics Engineering (1990)
B.S., M.A., University of Scranton

David W. Black (1984)
Associate Professor, Philosophy (1986)
B.A., Northern Illinois University;
M.A., Ph.D., Pennsylvania State University

Rosellen Bohlen (1987)
Instructor, Nursing (1987)
B.S.N., University of Illinois;
M.S., University of Rochester

Mrigen Bose, D. et U.* (1968)
Associate Professor, Economics/Finance (1977)
B.S., Patna University;
M.A., M.A., University of Calcutta;
M.S., University of Kentucky;
Ph.D., University of Utah

Richard J. Bourcier, D. et U.* (1968)
Professor, Foreign Languages and Literatures (1984)
A.B., Assumption College;
M.A., Laval University;
Ph.D., State University of New York at Binghamton

Alan L. Brumagim (1990)
Assistant Professor, Management/Marketing (1990)
B.B.A., Pennsylvania State University;
M.B.A., Temple University

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** On Leave

James P. Buchanan (1977)
Associate Professor, Psychology (1981)
B.A., The Johns Hopkins University;
M.A., Ph.D., University of California, Los Angeles

M. Russell Buchanan (1985)
Assistant Director for Library Technical Services and Automation (1985)
Assistant Librarian II (1990)
B.A., Grove City College
M.A., Carnegie Mellon University
M.L.S., University of Pittsburgh

Michael C. Cann (1975)
Professor, Chemistry (1988)
B.A., Marist College;
M.S., Ph.D., State University of New York at Stony Brook

Joseph M. Cannon, D. et U. * (1959)
Professor, Education (1974)
B.S., University of Scranton;
M.Ed., Doctoral Studies, Pennsylvania State University
Licensed Psychologist

J. Timothy Cannon (1981)
Associate Professor, Psychology (1986)
B.S., University of Scranton;
Ph.D., University of Maine

Edward J. Capestany, D. et U. * (1968)
Professor, Philosophy (1974)
B.S., M.A., University of Comillas, Spain;
Ph.D., University of Ottawa

Michael D. Carey (1978)
Professor, Biology (1990)
B.A., Wittenberg University;
M.A., Ph.D., Indiana University

Brian Carpenter, C.M.A. (1987)
Assistant Professor, Accounting (1987)
B.S., Ph.D., The Pennsylvania State University;
M.B.A., University of Scranton;

Ellen M. Casey, D. et U. * (1969)
Professor, English (1981)
B.S., Loyola University, Chicago;
M.A., University of Iowa
Ph.D., University of Wisconsin

Judith A. Casey (1988)
Lt. Col., U.S. Army
Professor, Military Science (1988)
B.S., Fort Hays State University;
M.S., Florida International University

Stephen J. Casey, D. et U. * (1969)
Associate Professor, Theology/Religious Studies (1981)
A.B., Iona College;
M.A., Marquette University

Timothy K. Casey (1987)
Associate Professor, Philosophy (1990)
B.A., Loras College;
M.A., University of Pittsburgh;
M.A., Ph.D., Duquesne University

Charles Chamberlain (1985)
Capt., U.S. Army
Assistant Professor, Military Science (1985)
B.S., Central Missouri State University

Raymond W. Champagne, Jr., D. et U. * (1967)
Professor, History/Political Science (1981)
A.B., Providence College;
M.S., Duke University;
Ph.D., Loyola University, Chicago

Leonard Champney (1979)
Associate Professor, History/Political Science (1984)
B.S., University of Texas, El Paso;
Ph.D., Rutgers University

Ching-Ming Chao (1990)
Instructor, Computer Science (1990)
B.S., Soochow University;
Ph.D. Cand., University of Iowa

Satya P. Chattopadhyay (1990)
Assistant Professor, Management/Marketing (1990)
B.M.E., Jadaupur University;
P.G.D.M., Indian Institute of Management, Calcutta;
Ph.D., Virginia Polytechnic Institute and State University

Ying I. Chien (1979)
Associate Professor, Quantitative Management Systems (1979)
B.S., National Taiwan University;
M.S., University of Manitoba;
Ph.D., University of Kentucky

Jafor Chowdhury (1987)
Assistant Professor, Management/Marketing (1987)
M. Comm., B. Com., Dacca University;
M.B.A., Dalhousie University;
Ph.D., Temple University

Ruth Yaron Cicilioni (1982)
Assistant Professor, Mathematics (1986)
B.S., East Stroudsburg University;
M.S., Villanova University;
M.B.A., University of Scranton

Joseph F. Cimini (1980)
Assistant Professor, Sociology/Criminal Justice (1980)
B.A., University of Scranton;
J.D., Columbus School of Law,
The Catholic University of America

John J. Clarke (1986)
Professor, Communication (1986)
A.B., University of Scranton;
A.M., Fordham University;
M.S.J., Columbia University;
Ph.D., Brown University

Orestes P. Coccia, S.J. (1975)
Assistant Professor, Theology/Religious Studies (1975)
A.B., Fordham University;
Th.B., Regis College, Toronto;
Ph.D., University of Strasbourg

Thomas M. Collins (1989)
Instructor, Human Resources (1989)
B.S., Kutztown University;
M.L.S., Rutgers University;
Ed. M., Temple University;
Ph.D. Cand., State University of New York at Albany

James J. Conlin, S.J., D. et U. * (1967)
Professor, Sociology/Criminal Justice (1970)
A.B., Ph.L., M.A., Ph.D., St.Louis University;
S.T.L., Woodstock College

Joseph W. Connolly (1983)
Associate Professor, Physics/
Electronics Engineering (1983)
Chairperson, Department of Physics/EE (1988)
B.S., University of Scranton;
M.S., University of Illinois;
Ph.D., Pennsylvania State University

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** On Leave

Willis M. Conover (1978)
Associate Professor, History/Political Science (1986)
B.A., B.S., Pennsylvania State University;
M.S., Ed.D., Montana State University

John R. Conway (1985)
Associate Professor, Biology (1985)
B.S., Ohio State University;
M.A., Ph.D., University of Colorado

Frank P. Corcione (1978-1979, 1982)
Associate Professor, Economics/Finance (1982)
B.A., Moravian College;
M.A., Ph.D., Lehigh University

Margaret Craft (1988)
Assistant Director of Library for Special Services (1989)
Director of the University Archives (1989)
Assistant Librarian II (1990)
A.B., Central Michigan University;
B.S., University of Scranton;
A.M.L.S., University of Michigan

James J. Cunningham, D. et U.* (1968)
Associate Professor, Human Resources (1971)
A.B., King's College;
Ed.M., Ed.D., Rutgers University;
Licensed Psycholologist

Wayne H.J. Cunningham (1987)
Associate Professor, Quantitative
Management Systems (1987)
B.S., M.B.A., Ph.D., Pennsylvania State University

Francis H. Curtis, D. et U.* (1966)
Associate Professor, Education (1980)
B.S., M.Ed., Pennsylvania State University

Thomas W. Decker (1977)
Associate Professor, Human Resources (1982)
B.A., Dickinson College;
M.Ed., University of Virginia;
Ph.D., Ohio State University;
Licensed Psychologist

Michael D. DeMichele, D. et U.* (1967)
Professor, History/Political Science (1974)
Chairperson, Department of History/
Political Science (1976)
B.S., University of Scranton;
M.A., Ph.D., Pennsylvania State University

Vito DelVecchio, D. et U.* (1969)
Professor, Biology (1977)
Chairperson, Department of Biology (1987)
B.A., University of Scranton;
M.S., St. John's University;
Ph.D., Hahnemann Medical College Graduate School

Jones DeRitter (1990)
Assistant Professor, English (1990)
A.B., Oberlin College;
M.A., Ph.D., University of Virginia

Linda H. Desmond (1987)
Assistant Professor, Nursing (1990)
R.N., Beebe Hospital School of Nursing;
B.S.N., Cedar Crest College;
M.S.A.N., University of Delaware

Trudy A. Dickneider (1984)
Associate Professor, Chemistry (1989)
B.A., M.A., St. Joseph's College;
Ph.D., University of Miami

Sandra L. DiGiaimo (1989)
Instructor, Education (1989)
B.A., Paterson State College;
M.S., Ohio University;
Ph.D., Cand., University of Maryland

Patrice Di Quinzio (1989)
Assistant Professor, Philosophy (1989)
B.A., Villanova University;
M.A., Ph.D., Bryn Mawr College

Anthony J. DiStefano, D. et U.* (1968)
Associate Professor, Physics/Electronics Engineering (1977)
B.E.E., Brooklyn Polytechnic Institute;
M.A., Columbia University;
Ph.D., Stevens Institute of Technology

David J. Doiron (1985)
Assistant Professor, Physics/Electronics Engineering (1985)
B.S., Massachusetts Institute of Technology;
M.S., University of New Hampshire;
Ph.D., University of Iowa

Joseph C. Dougherty, D. et U.* (1967)
Professor, History/Political Science (1967)
A.B., St. Charles College;
M.A., Ph.D., Georgetown University;

James N. Dragotto (1987)
Assistant Professor, Accounting (1987)
B.S., University of Scranton;
M.B.A., Lehigh University;
J.D., Valparaiso School of Law

Joseph H. Dreisbach (1978)
Professor, Chemistry (1989)
B.A., LaSalle University;
M.S., Ph.D., Lehigh University

Katie S. Duke (1985)
Associate Librarian (1990)
B.A., California Baptist College
M.L.S., University of Oklahoma;
M.S., University of Scranton;
Ph.D. Cand., University of Pennylvania

Josephine M. Dunn (1988)
Instructor, Fine Arts (1988)
B.A., B.F.A. University of Houston;
M.A., Ph.D. Cand., University of Pennsylvania

John L. Dunleavy (1989)
Major, U.S. Army
Assistant Professor, Military Science (1989)
B.A., Regents College

John J. Dunstone, D. et U.* (1966)
Professor, Psychology (1974)
B.S., Pennsylvania State University;
M.S., Ph.D., University of Massachusetts

Kathleen G. Dwyer (1988)
Assistant Professor, Biology (1988)
B.S., East Stroudsburg University;
M.A., Ph.D., Princeton University

John L. Earl, III, D. et U.* (1964)
Professor, History/Political Science (1972)
B.S., M.A., Villanova University;
Ph.D., Georgetown University

Gary E. Eichelsdorfer, D. et U.* (1965)
Associate Professor, Mathematics (1979)
Chairperson, Department of Mathematics (1989)
A.B., Gannon College;
M.A., University of Detroit

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Kurt W. Eisele (1986)
Capt., U.S. Army
Assistant Professor, Military Science (1986)
B.S., M.S., M.S., University of Scranton

Lee Ann Eschbach (1986)
Instructor, Human Resources (1986)
B.S., M.S., Ph.D. Cand., Washington State University

Joseph T. Evans, D. et U.* (1953)
Professor, Biology (1965)
B.S., University of Scranton;
M.S., Ph.D., The Catholic University of America

Matthew J. Fairbanks, D. et U.* (1960)
Professor, Philosophy (1970)
B.S., M.A., Loyola University, Chicago;
Ph.D., University of Notre Dame

Marian Farrell (1990)
Assistant Professor, Nursing (1990)
B.S.N., M.S.N., College Misericordia

John Quentin Feller, D. et. U.* (1969)
Professor, History/Political Science (1976)
A.B., Loyola College;
M.A., Ph.D., The Catholic University of America

Anthony Ferzola (1990)
Associate Professor, Mathematics (1990)
B.A., Queens College;
M.A., Ph.D., New York University

Daniel V. Fraustino (1982)
Associate Professor, English (1985)
B.A., State University of New York at Buffalo;
M.A., San Diego State University;
Ph.D., State University of New York at Binghamton

Brigid Curtin Frein (1988)
Assistant Professor, Theology/Religious Studies (1988)
B.A., Gonzaga University
Ph.D., St. Louis University

David O. Friedrichs (1977)
Associate Professor, Sociology/Criminal Justice (1983)
A.B., University College of New York;
M.A., New York University

William A. Gabello, C.P.A. (1983)
Assistant Professor, Accounting (1990)
B.S., University of Scranton

Rosellen M. Garrett (1980)
Associate Professor, Nursing (1980)
B.S., College Misericordia;
M.S., University of Maryland;
Ph.D., Medical College of Pennsylvania

Darla Rae Germeroth (1989)
Assistant Professor, Communication (1989)
B.A., M.A., Kansas State University;
Ph.D., University of Denver

Thomas W. Gerrity (1976)
Associate Professor, Education (1986)
B.S., University of Pennsylvania;
M.S., University of Scranton;
Ed.D., Columbia University

Satyajit P. Ghosh (1986)
Assistant Professor, Economics/Finance (1986)
B.A., Presidency College, India;
M.A., University of Calcutta;
M.A., Ph.D., State University of New York at Buffalo

A. John Giunta, D. et U.* (1960)
Professor, Economics/Finance (1967)
B.S., Harpur College;
M.S., Ph.D., Syracuse University

Kingsley S. Gnanendran (1989)
Assistant Professor, Quantitative
Management Systems (1989)
B.S.C., University of Sri Lanka;
M.Eng., Asian Institute of Technology;
Ph.D., University of Tennessee

Irene Goll (1988)
Assistant Professor, Management/Marketing (1988)
B.S., Pennsylvania State University;
M.A., University of Illinois;
Ph.D., Temple University

Deborah J. Gougeon (1979)
Associate Professor, Quantitative
Management Systems (1988)
B.S., M.S., University of Scranton;
Ph.D., Walden University

Leonard G. Gougeon (1974)
Professor, English (1982)
B.A., St. Mary's University, Halifax;
M.A., Ph.D., University of Massachusetts

Gary R. Grainger (1988)
Assistant Professor, Mathematics (1989)
B.S., George Mason University;
Ph.D., University of Arizona

Ralph W. Grambo, Jr. (1973)
Associate Professor, Economics/Finance (1978)
Chairperson, Department of Economics/Finance (1990)
B.S., University of Scranton;
M.B.A., Ph.D., University of Pennsylvania

Ronald J. Grambo, C.P.A. (1976-77; 1980)
Associate Professor, Accounting (1988)
Chairperson, Department of Accounting (1987)
B.S., M.B.A., University of Scranton;
Ph.D., Pennsylvania State University

David Hair (1986)
Instructor, Physical Education (1986)
B.S., M.Ed., East Stroudsburg University

David W. Hall (1985)
Assistant Professor, Human Resources (1987)
A.B., Lycoming College;
M.S., University of Scranton;
Ph.D., Pennsylvania State University

Joseph M. Hamernick, S.J., D. et U.* (1970)
Assistant Professor, Communication (1970)
B.S., St. Joseph's College;
S.T.B., Woodstock College;
M.A., The Catholic University of America

Joseph A. Hammond, CPA (1983)
Instructor, Accounting (1983)
B.S. Lehigh University;
M.B.A., University of Scranton;
Ph.D. Cand., Syracuse University

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Joyce Hanks (1989)
Associate Professor, Foreign Languages and Literatures (1989)
B.A., M.A., University of Wisconsin;
Ph.D., Washington University

Michael A. Hardisky (1984)
Associate Professor, Biology (1989)
B.S., Lebanon Valley College;
M.S., Ph.D., University of Delaware

Patricia Harrington (1984)
Assistant Professor, Nursing (1989)
B.S., Medgar Evers College;
M.S., Hunter-Bellevue School of Nursing;
M.Ed., Columbia University

Claudia Harris (1988)
Associate Professor, Management/Marketing (1990)
B.S., Eastern Kentucky University,
M.B.A., University of Utah;
Ph.D., University of Utah

Jean Wahl Harris (1987)
Assistant Professor, History/Political Science (1988)
B.A., M.A., Ph.D., State University of New York at Binghamton

Maurice I. Hart, Jr., D. et U.* (1963)
Professor, Chemistry (1971)
Chairperson, Department of Chemistry (1985)
A.B., Maryknoll College;
M.S., Ph.D., Fordham University

Eileen B. Hewitt (1982)
Assistant Professor, Management/Marketing (1988)
Chairperson, Department of Management/Marketing (1987)
B.S., St. Joseph's College, Maine;
M.S., University of Hartford

John M. Hill (1981)
Associate Professor, English (1987)
B.A., Central College;
M.A., University of Illinois;
M.F.A., University of Iowa;
Ph.D. Cand., University of Illinois

Frank X.J. Homer, D. et U.* (1968)
Professor, History/Political Science (1984)
A.B., University of Scranton;
M.A., Ph.D., University of Virginia

John S. Hopkins, D. et U.* (1967)
Assistant Professor, Physical Education (1970)
B.S., East Stroudsburg University;
M.S., University of Massachusetts

Beth Howlett (1980)
Assistant Professor, Physical Education (1985)
B.S., M.S., State University of New York at Cortland;
M.S., University of Scranton

Sharon Hudacek (1990)
Assistant Professor, Nursing (1990)
B.S.N., M.S.N., College Misericordia;
M.Ed., Ed.D., Columbia University

Robert F. Hueston, D. et U.* (1968)
Associate Professor, History/Political Science (1976)
A.B., College of the Holy Cross;
M.A., Ph.D., University of Notre Dame

Riaz Hussain, D. et U.* (1967)
Associate Professor, Economics/Finance (1985)
B.S., Forman College, Pakistan;
M.S., University, of Panjab, Pakistan;
M.B.A., University of Scranton;
Ph.D., Johns Hopkins University

Paul M. Jackowitz, C.D.P., C.C.P. (1977-80; 1982)
Assistant Professor, Computer Science (1982)
B.S. University of Scranton;
M.S., Rensselaer Polytechnic Institute

Jakub S. Jasinski (1987)
Assistant Professor, Mathematics (1987)
M.S., University of Gdansk;
Ph.D. University of Essex

Linda Jacob (1987)
Assistant Professor, Chemistry (1987)
B.A., M.A., Vassar College;
Ph.D., New York University

Bernard J. Johns, D. et U.* (1961)
Associate Professor, Mathematics (1979)
A.B., Wilkes College;
M.A., Bucknell University

Julia A. Johnson (1989)
Assistant Professor, Computer Science (1989)
B.Sc., University of Alberta;
M.Sc., Ph.D., University of British Columbia

Francis X. Jordan, D. et U.* (1966)
Associate Professor, English (1976)
Chairperson, Department of English (1987)
A.B., M.A., University of Scranton;
Ph.D., St. Louis University

John R. Kalafut, D. et U.* (1965)
Professor, Physics/Electronics Engineering (1974)
B.S., University of Scranton;
M.S., University of Delaware

Prasadarao V. Kakumanu (1987)
Professor, Quantitative Management Systems (1984)
Chairperson, Department of Quantitative Management Systems (1987)
B.S., Andhra University;
M.S., Patna University;
M.S., Delhi University;
Ph.D., Cornell University

John Kallianiotis (1990)
Assistant Professor, Economics/Finance (1990)
B.A., University of Thessalonika;
M.A., M.Ph., Ph.D., City University of New York

Thomas A. Kamla (1978)
Professor, Foreign Languages and Literatures (1987)
B.A., St. John's University, Minnesota;
M.A., Ph.D., University of Wisconsin

Marie E. Karam (1990)
Lecturer, Foreign Languages and Literaturers (1990)
B.A., Marywood College;
M.A., Penn State University

Jan W. Kelly (1988)
Associate Professor, Communication (1988)
B.A., Pennsylvania State University;
M.A., San Francisco State University;
Ph.D., University of Minnesota

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Raymond L. Kimble (1973)
Associate Professor, Education (1973)
B.S., Mansfield State College;
M.S., State University of New York at Cortland;
Ed.D., Arizona State University

Gary Kleinman (1990)
Assistant Professor, Accounting (1990)
B.A., M.B.A., Rutgers University

Stephen L. Klingman (1973)
Assistant Professor, Physical Education (1977)
B.S., M.S., Ithaca College

Richard Klonoski (1981)
Associate Professor, Philosophy (1988)
Chairperson, Department of Philosophy (1989)
B.A., University of Scranton;
M.A., Kent State University;
Ph.D., Duquesne University

Robert Kocis (1989)
Assistant Professor, History/Political Science (1989)
B.A., St. Vincent College;
M.A., Ph.D., University of Pittsburgh

M. Jane Kopas, O.S.F. (1978)
Associate Professor, Theology/Religious Studies (1983)
B.S., M.A., St. Bonaventure University;
Ph.D., Graduate Theological Union

Edmund M. Kosmahl (1983)
Assistant Professor, Physical Therapy (1987)
B.S., M.S., Temple University

Gary C. Kwiecinski (1988)
Assistant Professor, Biology (1988)
A.A., A.A.S., Rockland Community College;
M.S., Rutgers University;
Ph.D., Cornell University

Neela Lakshmanan (1987)
Assistant Professor, Mathematics (1987)
B.S., M.S., Mysore University;
M.A., Ph.D., State University of New York at Buffalo

Linda Ledford-Miller (1985)
Assistant Professor, Foreign Languages and Literatures (1988)
B.A., University of California, Irvine;
M.A., Pennsylvania State University;
Ph.D., University of Texas at Austin

John J. Levko, S.J. (1979)
Professor, Mathematics (1987)
Director, Eastern Christian Studies (1986)
B.A., M.S., Ph.D., Lehigh University;
S.T.B., Gregorian University;
M.A., John XXIII Institute, Maryknoll;
S.E.O.L., S.E.O.D. Cand.,
Pontifical Oriental Institute, Rome, Italy

Dennis Linehan, S.J. (1967-69; 1984)
Assistant Professor, Theology/Religious Studies (1985)
A.B., M.A., St. Louis University;
M. Div., Woodstock College;
Ph.D., University of London

Barbara Samuel Loftus (1986)
Assistant Professor, Management/Marketing (1987)
B.S. Susquehanna University;
M.B.A. University of Scranton;
Ph.D. Cand., Syracuse University

Maggie A. Lund (1989)
Instructor, Human Resources (1989)
B.S., M.S., M.S., University of Scranton

Frank J. MacEntee, S.J., D. et U.* (1965)
Professor, Biology (1973)
B.S., Spring Hill College;
M.S., Ph.D., The Catholic University of America

Daniel Mahoney (1984)
Assistant Professor, Accounting (1989)
B.S., M.B.A., University of Scranton;
Ph.D. Cand., Syracuse University

Michael Marino, D. et U.* (1965)
Professor, Education (1970)
B.S., M.S., Brockport State College;
Ed.D., University of Buffalo

Dennis S. Martin (1985)
Associate Professor, Computer Science (1985)
B.S., Manhattan College;
M.A., University of Rochester;
M.S., Ed.D., State University of New York at Buffalo

David E. Marx (1987)
Assistant Professor, Chemistry (1988)
B.S., East Stroudsburg University;
Ph.D., State University of New York at Binghamton

Susan Fournier Mathews (1988)
Assistant Professor, Theology/Religious Studies (1988)
B.A., St. Anselm College;
M.A., Ph.D., The Catholic University of America

Gary E. Mattingly (1983)
Associate Professor, Physical Therapy (1988)
B.S., St. Ambrose College;
Ph.D., St. Louis University

Christine E. McDermott (1979)
Assistant Professor, Biology (1979)
B.A., California State at Fresno;
Ph.D., University of Tennessee

John W. McGinley (1970)
Professor, Philosophy (1979)
A.B., College of the Holy Cross;
Ph.D., Boston College

Eugene A. McGinnis, D. et U.* (1948)
Professor, Physics/Electronics Engineering (1963)
B.S., University of Scranton;
M.S., New York University;
Ph.D., Fordham University

John M. McInerney, D. et U.* (1966)
Professor, English (1977)
A.B., LeMoyne College;
M.A., Ph.D., Loyola University, Chicago

Robert L. McKeage (1974)
Assistant Professor, Marketing/Management (1978)
B.S., M.B.A., University of Scranton;
M.A., Lehigh University;
Ph.D. Cand., Temple University

Ronald H. McKinney, S.J. (1984)
Associate Professor, Philosophy (1989)
B.A., University of Maryland;
M.Div., Th.M., Weston School of Theology;
M.A., Ph.D., Fordham University

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University
** On Leave

Sharon M. Meagher (1989)
Instructor, Philosophy (1989)
B.A., Boston College;
Ph.D. Cand., State University of New York at Stony Brook

Michael Opasu Mensah (1987)
Assistant Professor, Accounting (1987)
B.S., University of Ghana;
M.B.A., N.E., Louisiana University;
Ph.D., University of Houston

Patrick Mohr, S.J. (1975)
Associate Professor, Philosophy (1981)
B.A., M.A., Spring Hill College;
Ph.D., Georgetown University

Kenneth G. Monks (1990)
Assistant Professor, Mathematics (1990)
B.S., Pennsylvania State University;
M.S., Ph.D., Lehigh University

Oliver J. Morgan, S.J. (1990)
Assistant Professor, Human Resources (1990)
B.A., Fordham University;
M.F.T., Hahnemann Medical University;
Ph.D. Cand., Boston University

Mary Elizabeth Moylan (1986)
Public Services/Reference Librarian (1986)
Assistant Librarian II (1990)
B.A., Marywood College;
M.L.S., Villanova University;
M.S., University of Scranton

Georgia L. Narsavage (1984)
Assistant Professor, Nursing (1988)
B.S.N., University of Maryland;
M.S.N., College Misericordia
Ph.D. Cand., University of Pennsylvania

Jay Nathan C.F.P.I.M. (1983)
Associate Professor, Quantitative
Management Systems (1983)
B.S., M.S., University of Madras;
M.E., University of Florida;
M.B.A., M.A., Ph.D., University of Cincinnati

Jose Fernando Naveda (1988)
Assistant Professor, Computer Science (1988)
B.S.D., Institute Technologica de Monterrey;
Ph.D., University of Minnesota

Hong V. Nguyen (1979)
Associate Professor, Economics/Finance (1985)
B.S., State University of New York at Brockport;
M.A., Ph.D., State University of New York at Binghamton

John C. Norcross (1985)
Professor, Psychology (1990)
Chairperson, Department of Psychology (1987)
B.A., Rutgers University;
M.A., Ph.D., University of Rhode Island
Licensed Clinical Psychologist

Kevin M. Nordberg (1970)
Professor, Philosophy (1989)
A.B., Assumption College;
M.A., Ph.D., University of Notre Dame

Kevin R. Norris (1977)
Assistant Librarian II (1981)
B.S., M.L.S., University of Pittsburgh;
M.A., University of Scranton

John J. O'Malley, D. et U.* (1968)
Associate Professor, Psychology (1971)
B.S., University of Scranton;
M.S., Ph.D., Ohio University

Alice O'Neill (1989)
Instructor, Human Resources (1989)
R.N., State University of New York at Endicott;
B.S., St. Joseph's College;
M.S., University of Scranton

Masood Otarod (1988)
Assistant Professor, Mathematics (1988)
B.S., Pahlavi University;
M.S., Sc.D. Columbia University

Walter A. Pachuk (1984)
Instructor, Management/Marketing (1985)
B.S., University of Connecticut;
M.B.A., University of Scranton

William J. Parente (1970)
Professor, History/Political Science (1973)
A.B., Xavier University;
Ph.D., Georgetown University

Robert A. Parsons (1979)
Associate Professor, Foreign Languages and
Literatures (1985)
Chairperson, Department of Foreign Languages and
Literatures (1988)
B.A., M.A., West Virginia University;
M.A., Ohio University;
Ph.D., Pennsylvania State University

Paul M. Perdew (1985)
Associate Professor, Mathematics (1985)
B.A., Washington & Jefferson College;
M.A., University of Hawaii;
Ph.D., University of Idaho

Njegos Petrovic, D. et U.* (1967)
Professor, Foreign Languages and Literatures (1974)
A.B., Classical College, Belgrade, Yugoslavia;
M.A., Ph.D., University of Montreal

Charles Pinches (1990)
Associate Professor, Theology/Religious Studies (1990)
B.A., Wheaton College;
M.A., Ph.D., University of Notre Dame

Richard Plishka (1986)
Associate Professor, Computer Science (1989)
B.S., University of Scranton;
M.S., M.B.A., Syracuse University

Susan Poulson (1990)
Assistant Professor, History/Political Science (1990)
B.A., George Washington University;
M.A., Ph.D., Georgetown University

Satyanarayana Prattipati (1990)
Assistant Professor, Quantitative
Management Systems (1990)
B.S., Andhra University;
M.B.A., Indian Institute of Management;
Ph.D., State University of New York at Buffalo

Rose S. Prave (1988)
Assistant Professor, Quantitative
Management Systems (1988)
B.S. Indiana University of Pennsylvania;
Ph.D., Pennsylvania State University

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University
** On Leave

John B. Pryle (1967-1969; 1972)
Assistant Professor, Sociology/Criminal Justice (1972)
Chairperson, Department of Sociology/
Criminal Justice (1989)
B.S., University of Scranton;
M.A., Fordham University

John J. Quinn, S.J., D. et U. * (1956)
Professor, English (1975)
A.B., College of the Holy Cross;
M.A., Fordham University;
S.T.B., Woodstock College;
Ph.D., University of London

Joseph L. Quinn, S.J. (1979)
Assistant Professor, English (1979)
A.B., Ph.L., A.M., Fordham University;
S.T.B., Woodstock College;
A.M., Ph.D., Harvard University

Murli Rajan (1989)
Assistant Professor, Economics/Finance (1989)
B.C.A., Victoria University;
M.Com., Delhi School of Economics, University of Delhi;
M.B.A., University of Scranton;
Ph.D. Cand., Temple University

William V. Rakauskas, D. et U. * (1969)
Professor, English (1979)
B.S., M.A., University of Scranton;
Ed.D., Temple University

Donna D. Ramos (1974)
Assistant Librarian II (1978)
B.A., State University of New York at New Paltz;
M.S.L.S., State University of New York at Geneseo

Peter Richard (1990)
Lecturer, Management/Marketing (1990)
B.S., Bloomsburg State University
M.B.A., University of Scranton

Edward J. Rielly (1971)
Assistant Professor, Sociology/Criminal Justice (1971)
A.B., Cathedral College;
M.A., St. John's University;
M.Ed., Ed.D., Columbia University

Dona Rinaldi (1985)
Assistant Professor, Nursing (1988)
B.S.N., College Misericordia;
M.S.N., Villanova University
M.Ed., Ed.D., Columbia University

John B. Robertson, Jr. D. et U. * (1969)
Assistant Professor, Physical Education (1969)
B.S., Springfield College;
M.A., Trenton State College

John L. Rogers (1985)
Associate Professor, Fine Arts (1985)
Chairperson, Department of Fine Arts (1988)
B.A., Blackburn College;
M.A., M.F.A., Northern Illinois University

J.W. Roberts (1986)
Assistant Professor, English (1987)
B.A., M.A., University of Arkansas;
Ph.D., Kent State University

Robin A. Roth (1987)
Assistant Professor, Philosophy (1987)
B.A., M.A., California State University at Long Beach;
Ph.D., De Paul University

Richard W. Rousseau, S.J. (1979)
Professor, Theology/Religious Studies (1979)
Chairperson, Department of Theology/
Religious Studies (1981)
A.B., M.A., Boston College;
S.T.L., Facultes St. Albert de Louvain, Belgium;
S.T.D., St. Paul's University, Ottawa;
Ph.D., University of Ottawa

William Rowe (1990)
Associate Professor, Philosophy (1990)
B.A., Allegheny College;
M.A., Pittsburgh Tehological Seminary;
M.Phil., Institute for Christian Studies;
Ph.D., Duquesne University

Midori Y. Rynn (1975)
Associate Professor, Sociology/Criminal Justice (1982)
B.A., Sophia University;
M.A.L.S., University of Michigan;
M.A., Ph.D., Michigan State University

Thomas F. Sable, S.J. (1985)
Assistant Professor, Theology/Religious Studies (1985)
B.A., Boston College;
M.S., Georgetown University;
M. Div., Jesuit School of Theology;
Ph.D., Graduate Theological Union

Robert P. Sadowski (1987)
Professor, Communication (1987)
Chairperson, Department of Communication (1987)
B.A., Michigan State University;
M.S., Syracuse University;
Ph.D., University of Iowa

John P. Sanko (1990)
Assistant Professor, Physical Therapy (1990)
B.S., M.S., East Stroudsburg State College

Edward M. Scahill (1989)
Assistant Professor, Economics/Finance (1989)
B.S., St. Bonaventure University;
M.A., Ph.D., State University of New York at Binghamton

Carl Schaffer (1988)
Assistant Professor, English (1988)
B.A., Farleigh Dickinson University;
M.A., University of Michigan;
M.F.A., University of Iowa;
Ph.D. Cand., University of Denver

Thomas L. Scott, S.J. (1970)
Assistant Professor, History/Political Science (1976)
B.A., M.A., St. Louis University;
Ph.D., University of Wisconsin

Larry R. Sherman (1981)
Assistant Professor, Chemistry (1981)
B.S., Lafayette College;
M.S., Utah State University;
Ph.D., University of Wyoming

Cheng Hwa Siao, D. et. U. * (1969)
Associate Librarian (1978)
LL.B., Soochow University;
M.A., Meiji University;
M.S.L.S., Villanova University

James R. Sidbury (1983)
Associate Professor, Computer Science (1983)
B.S., Duke University;
M.S., Ph.D., Auburn University

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University
** On Leave

Ronald Sinzdak, D. et U.* (1962-65; 1970)
Associate Professor, Mathematics (1974)
B.S., King's College;
M.A., Fordham University;
Ph.D., University of Missouri

Shirleen Smith (1988)
Instructor, Mathematics (1988)
A.A., Mount Wachusett Community College
B.S., M.S., University of Arizona

Robert A. Spalletta (1983)
Assistant Professor, Physics/Electronics Engineering (1983)
B.S., Stevens Institute of Technology;
M.S., Ph.D., University of Rochester

Joseph J. Sroka (1990)
Assistant Professor, Mathematics (1990)
B.A., M.A., Ph.D., University of California, Riverside

E. Springs Steele (1979)
Associate Professor, Theology/Religious Studies (1986)
B.A., M.A., Ph.D., University of Notre Dame

John C. Stevens (1987)
Assistant Professor, Computer Science (1987)
B.A., Reed College;
A.M., Ph.D., University of Chicago;
M.S., Lehigh University

John K. Stout, D. et U.* (1966)
Professor, Human Resources (1985)
Chairperson, Department of Human Resources (1989)
B.S, M.S., D.Ed., Pennsylvania State University
Licensed Psychologist
Certified Rehabilitation Counselor

Bonnie Strohl (1985)
Assistant Director, Public Services &
Collection Development, Library (1985)
Assistant Librarian II (1990)
B.A., University of Miami;
M.S., Shippensburg State College;
M.L.S., Simmons College

J. Michael Strong (1972)
Associate Professor, Physical Education (1982)
B.S., Concord College;
M.S., West Chester State College

Michael Sulzinski (1990)
Assistant Professor, Biology (1990)
B.S., Pennsylvania State Unversity;
Ph.D., Cornell University

John T. Talamini (1977)
Associate Professor, Sociology/Criminal Justice (1981)
B.S., St. Joseph's College;
M.A., Fordham University;
Ph.D., Rutgers University

Charles E. Taylor, C.D.P. (1974)
Associate Professor, Computer Science (1983)
B.S., M.B.A., West Virginia University

Len Tishchler (1990)
Assistant Professor, Management/Marketing (1990)
B.A., Wabash College;
M.B.A., Ph.D., University of Maryland

Daniel S. Townsend (1987)
Assistant Professor, Biology (1987)
B.A., College of the Holy Cross;
M.S., Central Michigan University;
Ph.D., State University of New York at Albany

Karyn Townsend (1989)
Lecturer, Biology (1989)
B.S., Michigan State University;
M.S., State University of New York at Albany

Susan Trussler (1985)
Assistant Professor, Economics/Finance (1987)
B.Sc., London School of Economics;
M.S., M.S., Ph.D., Pennsylvania State University;
A.P.C. New York University

Arthur Van Gelder (1987)
Associate Professor, Physics/Electronics Engineering (1987)
B.S., University of Pennsylvania;
M.E.E., City College of New York;
Ph.D., City University of New York

Argyrios C. Varonides (1989)
Assistant Professor, Physics/Electronics Engineering (1989)
B.S., University of Thessalonika;
M.S., Temple University;
Ph.D., Drexel University

Joe A. Vinson (1974)
Professor, Chemistry (1990)
B.S., University of California, Berkeley;
M.S., Ph.D., Iowa State University

Carol Ann Wilkie Wallace (1981)
Assistant Professor, Communication (1982)
B.A., M.A., Wayne State University;
Ph.D., University of Iowa

Roger D. Wallace (1976)
Associate Professor, Communication (1981)
A.B., Butler University;
M.A., Bowling Green University;
Ph.D., University of Michigan

Cheng-Yee Wang (1981)
Publications Librarian (1988)
Assistant Librarian II (1990)
B.A., National Taiwan University;
M.L.S., Villanova University

Edward F. Warner, D. et U.* (1964)
Professor, Communication (1980)
A.B., King's College;
M.S., University of Scranton

Joan M. Wasilewski (1988)
Assistant Professor, Chemistry (1988)
B.S., King's College;
Ph.D., University of Pennsylvania

Rhonda B. Weller (1985)
Assistant Professor, Nursing (1989)
B.S.N., Marywood College;
M.S.N., The Catholic University of America;

Daniel West (1990)
Assistant Professor, Human Resources (1990)
B.S., M.Ed., Ph.D., Pennsylvania State University

Stephen E. Whittaker (1983)
Associate Professor, English (1988)
B.A., M.A., Ph.D., University of Texas

David A. Wiley (1988)
Assistant Professor, Education (1988)
B.S., M.S., Ph.D., Temple University

Bernard D. Williams, D. et U.* (1962)
Professor, History/Political Science (1976)
B.S., LaSalle College;
M.A., Niagara University

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Joseph P. Wilson (1985)
Assistant Professor, Foreign Languages and Literatures (1987)
B.A., University of Toledo;
Ph.D., University of Iowa

Gary N. Wodder (1974)
Director, Athletics (1974)
Assistant Professor, Physical Education (1974)
Chairperson, Department of Physical Education (1974)
B.S., M.A., Ph.D., Northwestern University

Charles Wolterink (1986)
Assistant Professor, Fine Arts (1986)
B.A., Michigan State University;
M.A., Ph.D., Stanford University

Francis J. Wormuth (1979)
Assistant Professor, Management/Marketing (1979)
B.S., University of Scranton;
J.D., Duquesne University School of Law;
L.L.M., Boston University School of Law

Richard A. Wright (1989)
Associate Professor, Sociology/Criminal Justice (1989)
B.S., James Madison University;
M.A., Ohio University;
Ph.D., Kansas State University;

Zhong Cheng Xiong (1988)
Assistant Professor, Mathematics (1988)
B.S. Wuhan University;
M.S., Ph.D., Lehigh University;

Robert F. Young, S.J., D. et U.* (1965)
Associate Professor, Foreign Languages and Literatures (1979)
A.B., Ph.L., M.A., St. Louis University;
S.T.L., Woodstock College

Margarete Lieb Zalon (1988)
Assistant Professor, Nursing (1988)
B.S.N. Duke University;
M.A., Ph.D., New York University

Joseph R. Zandarski, C.P.A., D. et U.* (1951)
Professor, Accounting (1971)
B.S., University of Scranton;
M.B.A., New York University;
Ph.D., University of Pittsburgh

Dr. Susan Trussler, Fulbright Advisor (seated, second from left) and members of the University Fulbright Committee.

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University
** On Leave

Hiten Asar (1989)
Business Counselor (1989)
Bachelor of Commerce, Bangalore University, India;
M.B.A., University of Scranton

Anne Baldwin (1988)
Grants Information Specialist (1988)
B.A., State University of New York at Binghamton

Michele Ballou (1988)
Assistant Director, Learning Resources Center (1988)
B.S. University of Scranton

Christopher Banks, (1989)
Assistant to the President (1989)
B.A., B.S. University of Scranton

Ann Clark Bass (1978)
Director of Credit Programs, Dexter Hanley College (1987)
B.M., Marywood College;
M.A., Northeast Missouri State University

Theodore Bassano (1989)
Budget Director (1989)
B.A., State University of New York at Binghamton;
M.S., Elmira College

Thomas N. Beckish (1964)
Counselor, SOM Advising Center (1989)
Assistant Professor of Psychology (1967)
B.S., M.S., University of Scranton
Licensed Psychologist (1973)

Regina Bennett (1987)
Assistant to the Dean, Graduate School (1989)
A.A., University of Scranton

Cheryl Y. Boga (1982)
University Singers/Band Director (1982)
B.M., Marywood College

Karen Borden (1987)
IBM Systems Programmer/Technical Analyst, IBM
University Computing Systems (1987)
B.A., Temple University

Douglas Brickel (1986)
Director of Intramural and Recreational Sports (1987)
B.S., East Stroudsburg University

Paul Brown (1987)
Director of Public Relations (1987)
B.A., Simpson College;
M.S., Columbia University

Diane Brunnett (1986)
Computer Programmer
University Computing Systems (1986)
B.S., University of Scranton

Michele Buchinski (1984)
Small Business Development Center
Resource Coordinator (1984)

Arthur J. Bugh (1978)
Director of International Student Affairs (1986)
B.S., United States Military Academy;
M.S., University of Illinois;
M.B.A., University of Scranton

Kenneth S. Buntz (1979)
Sports Information Director (1979)
A.A., Keystone Jr. College;
B.A., University of Scranton

Ray Burd (1989)
Printing Services Manager (1989)
B.S., Empire State College;
M.S., Shippensburg University

Robert J. Burke, D. et U.* (1961)
Director of Personnel Services (1974)
B.S., M.S., University of Scranton

William R. Burke (1986)
Director of Financial Aid (1990)
B.S., Bloomsburg University;
M.B.A., University of Scranton

Mark A. Byrd (1987)
Director of Institutional Research (1987)
B.A., Ouachita University;
M.A., University of Arkansas

Maureen Castaldi (1985)
Senior Programmer/Analyst,
University Computing Systems (1989)
B.S., University of Scranton

Laurence Coar (1985)
Director, Business and Industry Development (1989)
B.S., University of Scranton

Marilyn Coar, D. et U.* (1948)
University Secretary and Executive
Assistant to the President (1987)
A.B., Rosemont College

Robert C. Checca (1989)
Registrar (1989)
A.A., Fulton-Montgomery Community College;
B.A., M.S., State University of New York at Plattsburgh

Charles Chulvick (1988)
Director, University Computing Systems (1988)
B.A., King's College;
M.Sc., University of Wales

Edward Conway (1987)
Coordinator of Media Broadcast Productions (1989)
B.S., East Stroudsburg University

Lisa Cornell (1983)
Project Leader, University Computing Systems (1989)
B.S., University of Scranton

Mark Costello (1987)
Admissions Counselor (1987)
B.A., M.S., Mansfield University

Marianne Czernysz (1987)
Assistant to the Dean, CAS (1987)
B.S., Regis College

Marsha A. Daly (1981-83, 1985)
Assistant to the Dean, CAS (1989)

Mary Danuinas (1987)
Assistant Manager of Annual Fund (1987)
B.S., M.S., University of Scranton

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Kathleen Degyansky (1988)
Advisor, SOM Advising Center (1988)
B.S., Bowling Green State University

Stephen A. Dembrosky (1980)
Director of Security/Safety (1981)

James Devers, AIA (1985)
Director of Physical Plant (1989)
Associate Degree, Luzerne County Community College

Mildred Doyle (1988)
Nurse (1988)
R.N., Hahnemann Hospital School of Nursing

Frank Durkin (1988)
Staff Accountant (1988)
B.S., University of Scranton

Marcia Ebert-Baker (1988)
Academic Coordinator of Clinical Education,
Physical Therapy
B.S. Hunter College;
M.S. Mercy College

Christopher J. Ehrman (1989)
Associate Dean of Admissions (1989)
B.A., M.A., Gannon University

Kim Ellicks (1987)
Assistant Dean of Students (1987)
B.A., Lock Haven University

Sharon Evans (1979)
Assistant Director, Safety/Security (1989)
B.A. East Stroudsburg University

Teresa Fallon (1983)
Theatre Technical Director (1983)
B.A., University of Scranton

James Franceschelli (1982)
Assistant Director of Information Support Services (1988)
Associate Degree, Pennsylvania State University

Roseann Froese (1984)
Project Leader, University Computing Systems (1989)
B.S., University of Scranton

Lori Gavin (1990)
Technical Analyst for VAX (1990)
B.S., University of Scranton

William Genello (1984)
Associate Director of Public Relations (1987)
B.A., St. Bonaventure University

Janet N. Gilroy (1983)
Coordinator of Admissions
Dexter Hanley College (1988)
B.S., M.S., University of Scranton

Barbara Gleason (1982)
Assistant to Dean, School of Management (1982)
Director of SOM Advising Center (1988)
B.S., University of Scranton

James Goonan (1987)
Assistant to the Dean, Graduate School (1987)
B.S., University of Scranton

Lucia Granito (1983)
Assistant to Comptroller (1983)
B.S., M.S., University of Scranton

Sharon Grasso (1985)
Academic Advisor
Dexter Hanley College (1985)
B.S., M.A., University of Scranton

William Gunshannon (1989)
Technical Analyst-Networks (1989)

Judith R. Henning (1988)
Director, Learning Resources Center (1988)
B.S., M.S., Marywood College

Carol Herre (1988)
Information Support Analyst,
University Computing Systems (1988)
B.S., M.S., East Stroudsburg University

Larry J. Hickernell (1986)
Head of Media Resources (1986)
A.S.B., Central Pennsylvania Business School

Cynthia Hricko (1985)
Programmer/Analyst,
University Computing Systems (1985)
B.S., University of Scranton

Debbie Hudzinski (1987)
Information Support Analyst,
University Computing Systems (1987)
B.S., Marywood College

Thomas Hughes (1986)
ISS Analyst
University Computing Systems (1986)
B.S., M.B.A., University of Scranton

Stacey E. Jackson (1990)
University Designer (1990)
A.A., Art Institute of Philadelphia

John Janiczek (1988)
IBM Systems Program/Tech Analyst (1988)
B.S. Susquehanna University

Annmarie Kalafut (1985)
Programmer/Analyst,
University Computing Systems (1985)
B.S., East Stroudsburg University

Annette Kalwaytis (1982)
Library Circulation Supervisor (1985)
B.S., University of Scranton

Kathleen A. Kanavy (1981)
Minister of Liturgical Music/
Associate Campus Minister (1981)
B.M., Marywood College

Janice Kane (1986)
Assistant Director, Recreational Sports (1986)
B.A., University of Scranton

Mary Joan Kanzler (1986)
Counselor, Admissions (1986)
B.S., M.S., University of Scranton

Theresa Kaplan (1988)
Business Analyst, SBDC (1989)
B.S., University of Scranton

Louis C. Kleff, S.J., D. et U.* (1953)
Director of Physical Facilities and
Plant Development (1974)
A.B., M.A., Woodstock College

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Robert Klem (1987)
Programmer/Analyst,
University Computing Systems (1987)
B.S., Marywood College;

Kathleen R. Kopcik (1974)
Counselor (1974)
A.B., Marywood College;
M.S., University of Scranton

Joseph Lacey, S.J. (1988)
Associate Campus Minister (1988)
B.A., M.A., Fordham University

Brendan Lally, S.J. (1986)
Associate Campus Minister (1986)
B.S., University of Scranton;
M.D.V., Weston School of Theology;
M.P.S., Loyola University

Zim E. Lawhon, D. et U.* (1964)
Registrar Emeritus (1989)
Advisor, Academic Advising Center (1989)
Col., U.S. Army-Ret.
Professor of Military Science (1964)
A.B., M.S., Princeton University

Richard Loftus (1989)
Accountant (1989)
B.S., Marywood College

James Loven (1985)
Physics/EE Laboratory Equipment Manager
B.S., Pennsylvania State University

Francis Lynott (1988)
Manager, Facilities & Projects, Technology Center (1988)
B.S., University of Scranton

Lorraine Mancuso
Assistant Director for Database Administration and
Technical Projects (1989)
University Computing Systems (1982)
B.S., University of Scranton

James McAndrew (1989)
Research Associate (1989)
B.S., M.B.A., University of Scranton

Constance F. McDonnell (1983)
Assistant Director, Career Services (1983)
B.A., University of Denver;
M.A., Marywood College

Ellen E. McGuire (1988)
Associate Director, Financial Aid (1990)
B.A., Pennsylvania State University

Aileen McHale (1988)
ISS Software Analyst (1988)
B.S., King's College

Neil McLaughlin, S.J. (1983)
Assistant Director of Alumni Relations (1982)
A.B., S.T.B. Woodstock College;
M.A., Ph.L. Fordham University

John F. McNamara (1975)
Comptroller (1982)
B.S., University of Scranton

Vincent Merkel (1978)
ISS Analyst, Software,
University Computing Systems (1978)
B.S., University of Scranton

Maria Montenegro (1990)
Business Counselor (1990)
B.S., Georgetown University

James Morgan (1986)
Computer Specialist (1987)
A.A., Penn State University

Lawrence J. Morton, D. et U.* (1969)
Dean of Students (1974)
A.B., St. Bonaventure University;
M.S., Syracuse University;
M.S., University of Scranton;
D.Ed., Pennsylvania State University

Robert W. Muldoon, Jr. (1989)
Director of Corporation and
Foundation Relationships (1989)
B.A., University of the South;
M.Ed., Loyola College of Maryland

Harry Mumford (1988)
Outreach Specialist, Technology Center (1989)
B.S. Pennsylvania State University

Joseph Murtha (1984)
Superintendent of Repair,
Maintenance, and Construction (1989)

Evelyn H. Nadel (1989)
Director of Commuter and Off-Campus Affairs (1989)
B.A., William Penn College;
Ed.M., State University of New York at Buffalo

Edward T. O'Donnell, S.J. (1985)
Academic Advisor
Dexter Hanley College (1985)
B.A., Fordham University;
M.Div., S.T.L., Regis College, Toronto

Diane M. O'Neill (1989)
Benefits Manager (1989)
B.S., University of Toledo

Frank Orlando (1976)
Associate Registrar (1984)
B.S., Wilkes College;
M.B.A., University of Scranton

G. Donald Pantle, S.J. (1980)
Associate Campus Minister (1980)
B.A., Bellamine College;
M.A., Middlebury College

Frank D. Parker, D. et U.* (1969)
Manager of Procurement and Inventory Controls,
University Computing Systems (1989)
B.S., University of Scranton

Ruth Parry (1988)
Admissions Counselor (1988)
B.S., York College of Pennsylvania

Frank Pasquini (1987)
Executive Director of Development (1987)
B.A., King's College;
M.S., University of Scranton

Paul Perhach (1982)
Director of Career Services (1982)
B.A., King's College;
M.S., Marywood College

Howard Piltz (1986)
Biology Lab Supervisor (1986)
B.S., Pennsylvania Military College

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University.
** On Leave

Patricia Popeck (1987)
University Nurse (1987)
R.N., B.S.N., University of Virginia

Timothy J. Pryle (1989)
Admissions Counselor (1989)
B.S., University of Scranton

J. Frank Reddington, M.D., D. et U.* (1940)
University Physician (1940)
A.B., Holy Cross College;
M.D., Georgetown University

Debra Roberts (1988)
Assistant Athletic Trainer (1988)
B.S., Pennsylvania State University
M.S., Eastern Kentucky University

Sr. Joan Roccasalvo, C.S.J. (1976-81, 1986)
Coordinator, Eastern Christian Studies (1986)
Assistant Professor, Fine Arts (1987)
B.Mus., Alverno College;
M.A., New York University;
Advanced Studies, Villa Schifanoia Graduate
School of Fine Arts, Florence, Italy; John XXIII Institute;
Ph. D., The Catholic University of America

Sr. Judith Roemer (1987)
Assistant Director, Institute for
Contemporary Spirituality (1987)
B.A., Silver Lake College;
M.A., Marquette University

Maryjane S. Rooney (1989)
Special Events Manager (1989)
B.S., University of Scranton

Mirtha M. Rospigliosi (1971)
Assistant Director of Financial Aid (1979)

Elizabeth A. Rozelle (1989)
Career Counselor (1989)
B.A., Bloomsburg State College;
M.S., University of Scranton

Jerome Rubin (1989)
Grants and Foundations Specialist (1989)
B.S., M.S., Temple University

Mollie Ruffenach (1988)
Auxiliary Services Coordinator (1988)
B.S., University of Scranton

Marie A. Ryan (1983)
Nursing Learning Laboratory Director (1983)
B.S., College Misericordia;
M.S., University of Scranton

Richard Ryczak (1987)
Assistant to Archives Director (1987)
B.A., M.A., University of Scranton

Thomas A. Santucci (1976)
Electronic Data Processing
Coordinator (1976)

George J. Schemel, S.J. (1985)
Director, Institute of Spirituality (1985)
B.S., University of Scranton
M.A., Ph.L., Fordham University;
St.L., Woodstock College

Joseph Simmons, S.J. (1984)
Associate Campus Minister;
Chaplain to Commuter Students (1984)
A.B., M.A., Loyola University, Chicago

Ronald J. Skutnick (1981)
Assistant Director of Technical Services
University Computing System (1988)

Thomas Smith (1989)
Counselor (1989)
B.A., Bloomsburg State College;
M.A., Marywood College

Eric Snyder (1985)
Library Associate (1987)
A.A., Keystone College

Albert J. Solomon (1984)
Director of Continuing Education (1984)
Assistant Professor, Communication (1987)
B.A., M.A., University of Scranton;
Ph.D., Pennsylvania State University

Paul Spillane (1989)
Director of Central Services (1989)
B.S., University of Scranton

Arthur Spitzer (1988)
Business Planner, Technology Center (1988)

Alice Blake Stalker (1989)
Coordinator of Instructional Development (1989)
B.A., D'Youville College;
M.A., Atlanta University;
Ph.D., University of Georgia

Paul Strunk (1985)
Director of Planned Giving (1989)
B.A., University of Pittsburgh

John Tabor (1978)
Project Leader, University Computing Systems (1989)
B.S., University of Scranton

Marie Trovato (1986)
Manager, Annual Fund (1988)
B.A., Shippensburg University

Diana Moore Trygar (1983)
Chemistry Laboratory Supervisor (1983)
B.S., M.S., University of Scranton

Richard Trygar (1984)
Associate Chemistry Laboratory Supervisor (1984)
B.S., M.S., University of Scranton

Elaine Tweedy (1987)
Director SBDC, Assistant Director OBID (1989)
B.S., Marywood College

Paul Tweedy (1988)
Director of Operations, Technology Center (1989)
B.A., M.A., George Washington University

Patricia Vaccarro (1987)
Director of Student Volunteers (1987)
B.A., Marywood College

Mary Jo Walsh (1990)
Assistant to the Dean, CHEHR (1990)
B.A., University of Scranton

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University
** On Leave

Helen Weiss (1986)
Library Associate (1987)
B.S., Moorehead State College

Susan Williams-Quinlan (1989)
Clinical Psychologist, Counseling Center (1989)
B.A., Sonoma State University;
M.S., San Jose State University;
Ph.D., Cand., University of Rhode Island

David Wilson, AIA (1989)
Staff Architect and Quality Control Officer (1989)
B.A., University of Cincinnati

Constance Wisdo (1988)
CMPS Coordinator, Technology Center (1989)
B.S., B.S., King's College

Gerald Zaboski (1988)
Editor, The Record (1988) and
Assistant Manager of University Publications (1990)
B.A., University of Scranton

Gary S. Zampano (1974)
Director of Procurement and Inventory (1986)
B.S., M.B.A., University of Scranton

Robert P. Zelno (1982)
Director of Alumni Relations (1982)
B.S., M.S., University of Scranton

Jerome Zufelt (1989)
Manager of University Publications (1989)
B.S., Boston University

Frank Parker, Class of 1969, Manager of Procurement and Inventory Controls, University Computing Systems.

* The Pro Deo et Universitate Award for Twenty Years or more of Service to the University
** On Leave

AFFILIATED FACULTY

DIOCESAN FACULTY

Chair of Theology

Rev. John A. Bergamo, J.C.L.
Rev. Robert J. Barone, S.T.D.
Rev. Richard J. Gabuzda, S.T.D. Cand.

MEDICAL TECHNOLOGY FACULTY

PENNSYLVANIA

Abington Memorial Hospital
Abington, Pa.
Paul J. Cherney, M.D.
Barbara J. Scheelje, MT (ASCP)

The Allentown Hospital-
Lehigh Valley Hospital Center
Allentown, Pa.
John Shane, M.D.
Nancy Bickford, MT (ASCP)

Sacred Heart Hospital
Allentown, Pa.
Francis V. Kostelnik, M.D.
Sandy Neiman, M.A., MT (ASCP), CLS

The Bryn Mawr Hospital
Bryn Mawr, Pa.
Albert A. Keshgegian, M.D., Ph.D.
Nancy Calder, M.Ed., MT (ASCP)

Geisinger Medical Center
Danville, Pa.
John J. Moran, M.D.
Alvin Swartzentruber, MT (ASCP)

Scranton Medical Technology Consortium
Scranton, Pa.
Thomas V. DiSilvio, M.D.
Mary Gene Butler, M.S., MT (ASCP)

Divine Providence Hospital
Williamsport, Pa.
Galal Ahmed, M.D.
Loretta Moffatt, MT (ASCP)

Nazareth Hospital
Philadelphia, Pa.
William J. Warren, M.D.
Diane Bejsiuk, MT (ASCP)

Wilkes-Barre General Hospital
Wilkes-Barre, Pa.
C. Warren Koehl, M.D.
Helen Ruane, MT (ASCP)

NEW JERSEY

Barnert Memorial Hospital Center
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Pennsylvania	*St. Joseph's University, Philadelphia* *University of Scranton, Scranton*
Washington	*Gonzaga University, Spokane* *Seattle University, Seattle*
West Virginia	*Wheeling Jesuit College, Wheeling*
Wisconsin	*Marquette University, Milwaukee*

NOTES

NOTES

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UNIVERSITY OF SCRANTON CAMPUS DIRECTORY

FACILITIES

(1) Fitzpatrick Field
(2) Jefferson Hall
(3) O'Hara Hall
(4) The Gallery
(5) Rock Hall
(6) Alumni House
(7) Greenhouse
(8) Scranton Hall
(9) The Estate
(10) Memorial Library
(11) Loyola Hall
(12) St. Thomas Hall -McDade Technology Center
(13) Galvin Terrace
(14) Gunster Center
(15) John J. Long Center
(16) Maintenance Building
(17) Hill House
(18) Claver Hall
(19) New Library (under construction)
(20) Byron Recreation Complex
(21) Campion Hall
(22) Elm Park Annex
(23) Houlihan-McLean Center
(24) Smurfit Art Center
(25) Center, Eastern Christian Studies
(26) Hyland Hall
(27) CRC, Lake Chapman
(28) Poly-Hi Park

RESIDENCES

[30] Redington Hall
[31] Martin Hall
[32] Casey Hall
[33] Lynett Hall
[34] Hannan Hall
[35] Fitch Hall
[36] Denis Edward Hall
[37] Hafey Hall
[38] McCourt Hall
[39] Nevils Hall
[40] Driscoll Hall
[41] Gavigan Hall
[42] Luzerne House
[43] Hopkins House
[44] Kostka House
[45] New Hall (under construction)
[46] Gonzaga House
[47] Blair House
[48] Westmoreland House
[49] Fayette House
[50] Tioga House
[51] Liva House
[52] Cambria House
[53] Montgomery House
[54] Mercer House
[55] Wayne House
[56] Monroe House
[57] Wyoming House
[58] Bradford House
[59] Somerset House
[60] Jerrett House
[61] Jefferson Hall

PARKING

[A] Visitors
[B] Library - Student Parking
[C] St. Thomas - Staff
[D] St. Thomas - Staff
[E] Catlin Court - Staff
[F] Long Center (rear) - Staff
[G] Redington Hall - Students
[H] Poly-Hi Park - Students
[I] Student Center - Students
[J] Monroe Avenue - Students
[K] O'Hara Hall - Staff
[L] Jefferson Hall - Students
[M] Arts Center - Students
[P] Rock Hall - Students
[Q] Madison Avenue - Students
[R] Claver Hall - Staff/Students
[S] Jefferson Avenue - Staff

UNIVERSITY OF
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CAMPUS MAP

UNIVERSITY OF SCRANTON

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